

REMOVED	CLASS	SUBCLASS
BY		
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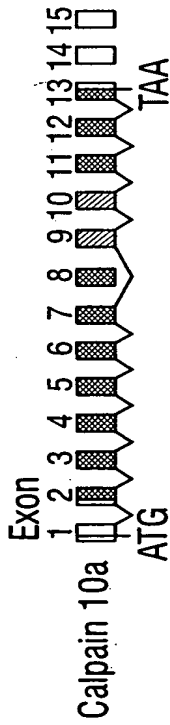
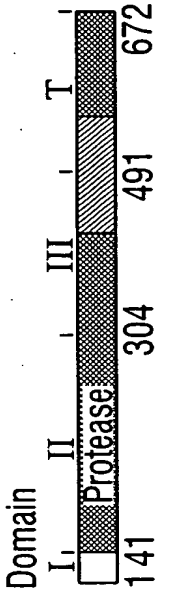


FIG. 1A

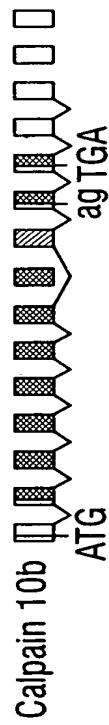
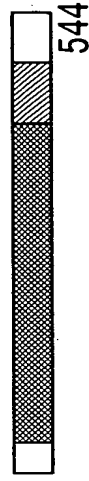


FIG. 1B

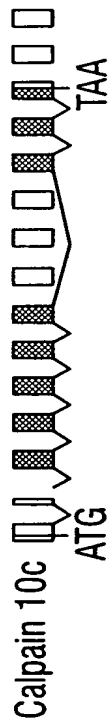
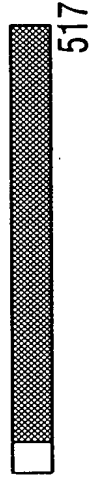


FIG. 1C

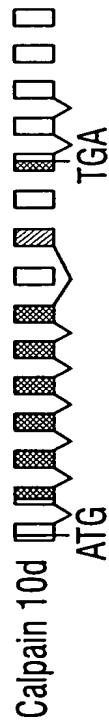
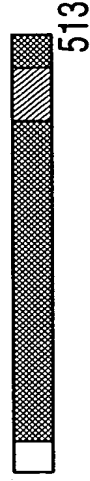


FIG. 1D

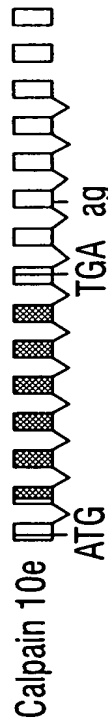
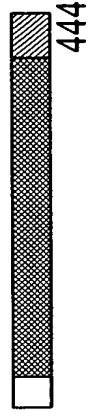


FIG. 1E



FIG. 1F

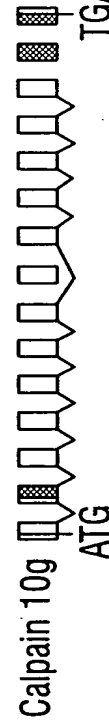


FIG. 1G

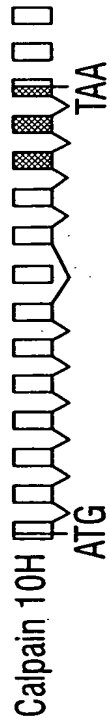


FIG. 1H

FIG. 2A	FIG. 2B	FIG. 2C
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APPROVED	Q.C.P.E.	SUBCLASS
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FIG. 2

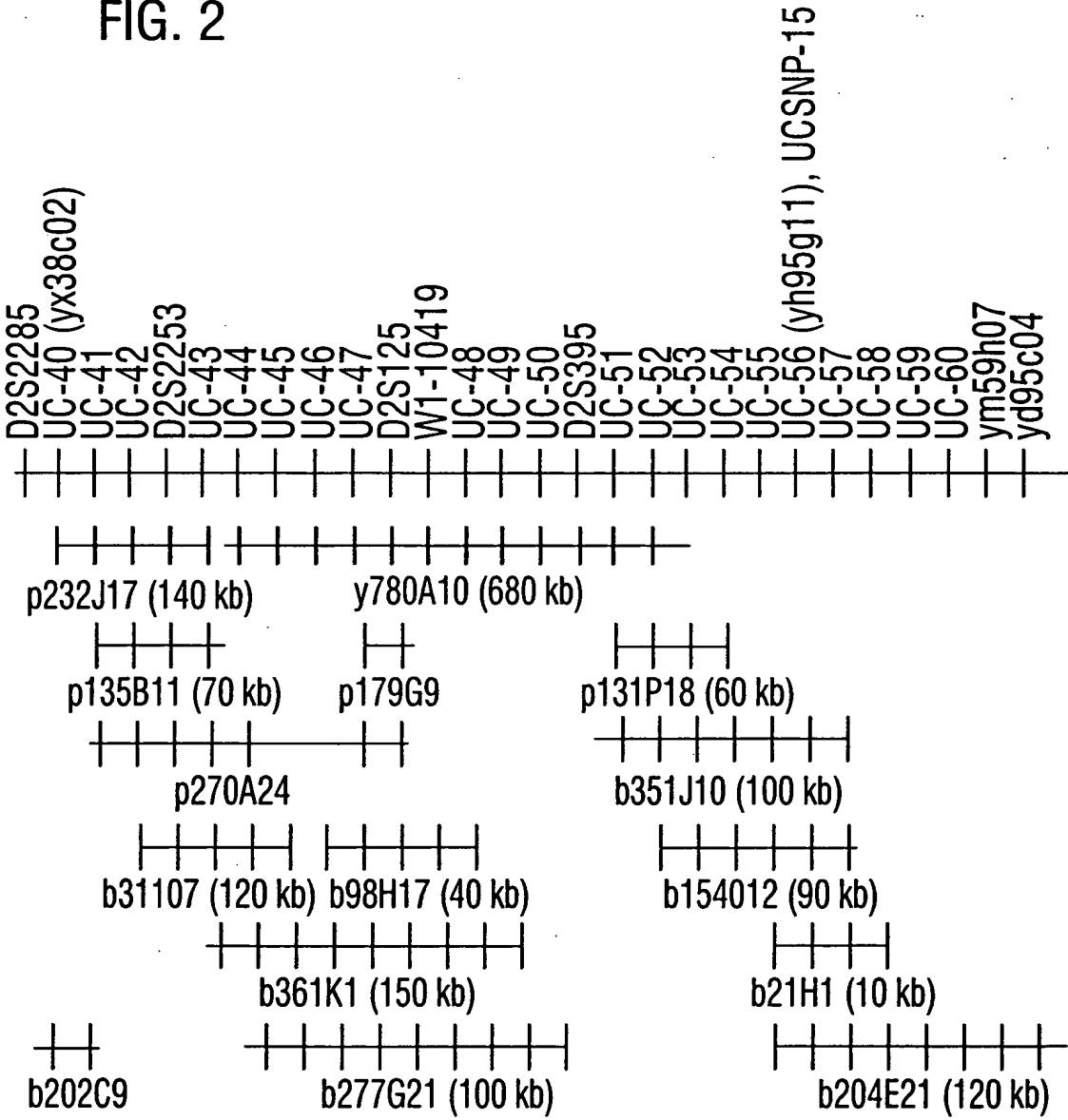


FIG. 2A

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
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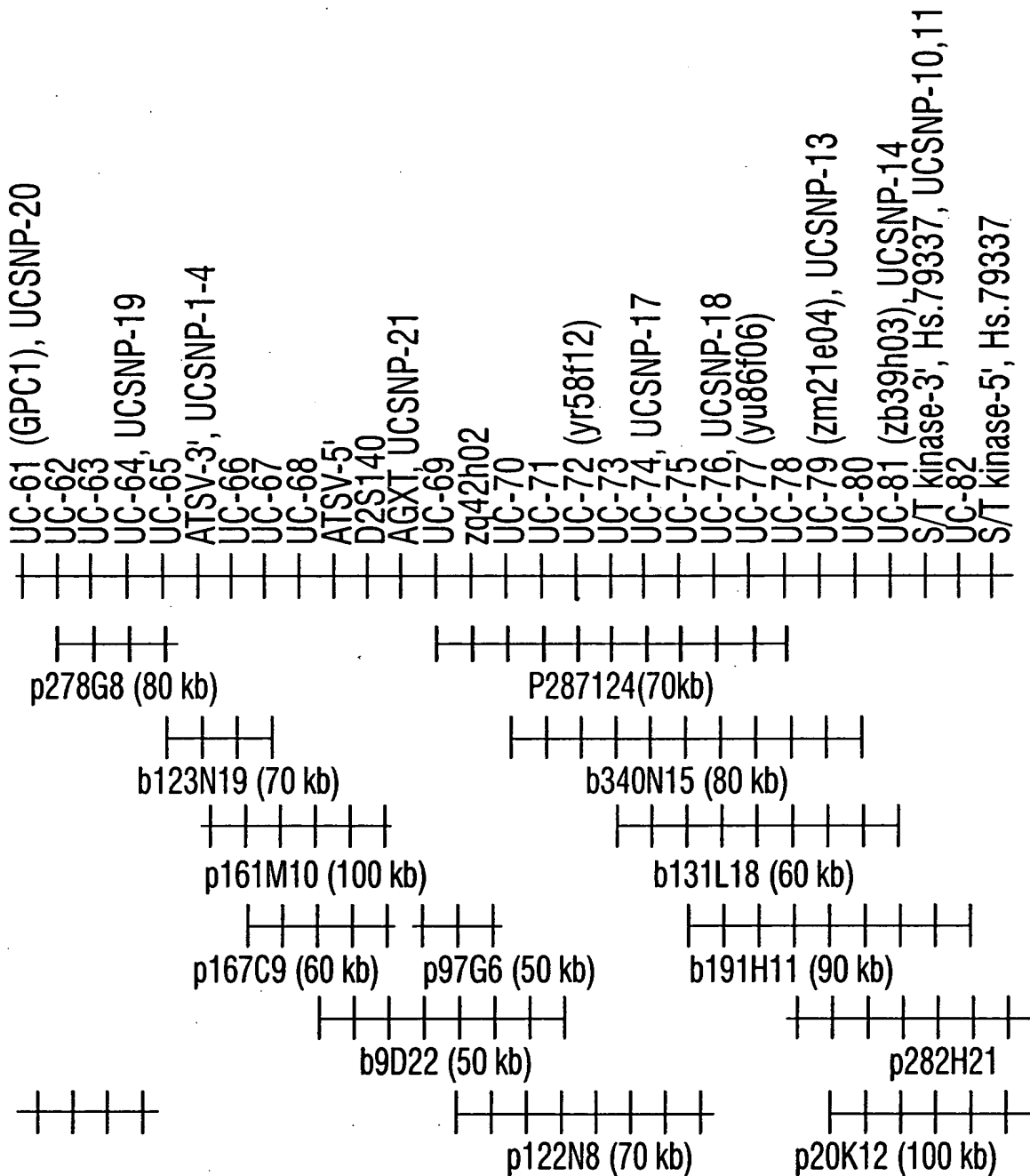


FIG. 2B

APPROVED		O.G. FIG.	
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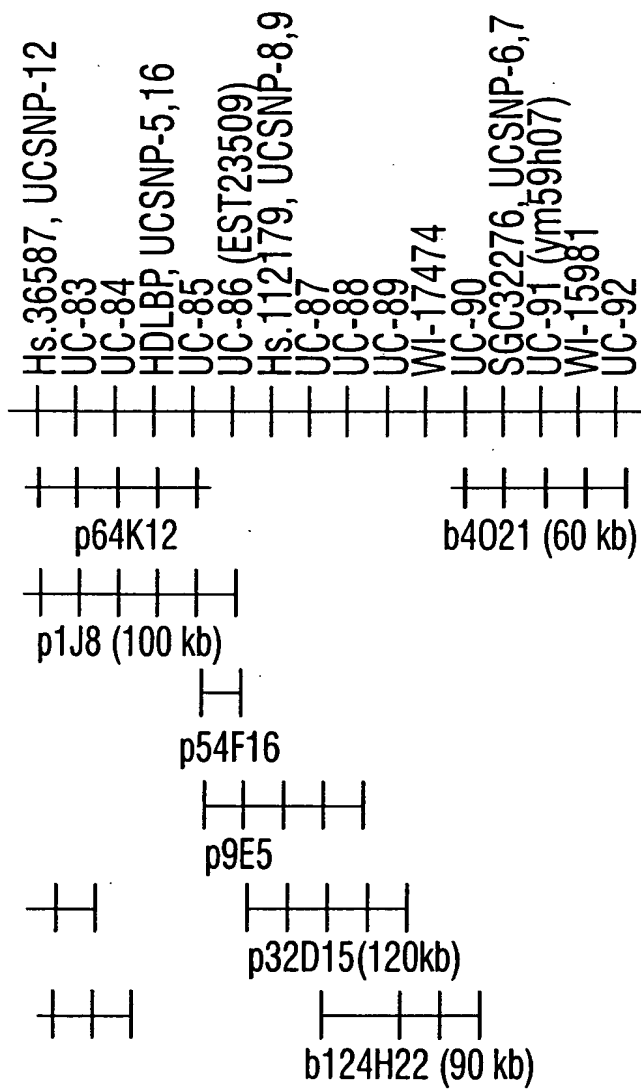


FIG. 2C

UCSNP-1,2,3,4

UCSNP-27,28,29

UCSNP-31

UCSNP-33

UCSNP-34

UCSNP-35

UCSNP-38,40

UCSNP-53

UCSNP-36,37

UCSNP-41

UCSNP-39

UCSNP-22,23,24,25,26

UCSNP-54

UCSNP-55

UCSNP-42

UCSNP-32

UCSNP-65

UCSNP-63

UCSNP-62

UCSNP-30

UCSNP-47

UCSNP-58

UCSNP-48

UCSNP-19

UCSNP-59

UCSNP-43,44,45,46

UCSNP-60

UCSNP-56

UCSNP-57

UCSNP-20

UCSNP-64

UCSNP-63

UCSNP-62

UCSNP-61

UCSNP-60

UCSNP-59

UCSNP-58

UCSNP-57

UCSNP-56

UCSNP-55

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UCSNP-53

UCSNP-52

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UCSNP-50

UCSNP-49

UCSNP-48

UCSNP-47

UCSNP-46

UCSNP-45

UCSNP-44

UCSNP-43

UCSNP-42

UCSNP-41

UCSNP-40

UCSNP-39

UCSNP-38

UCSNP-37

UCSNP-36

UCSNP-35

UCSNP-34

UCSNP-33

UCSNP-32

UCSNP-31

UCSNP-30

UCSNP-29

UCSNP-28

UCSNP-27

UCSNP-26

UCSNP-25

UCSNP-24

UCSNP-23

UCSNP-22

UCSNP-21

UCSNP-20

UCSNP-19

UCSNP-18

UCSNP-17

UCSNP-16

UCSNP-15

UCSNP-14

UCSNP-13

UCSNP-12

UCSNP-11

UCSNP-10

UCSNP-9

UCSNP-8

UCSNP-7

UCSNP-6

UCSNP-5

UCSNP-4

UCSNP-3

UCSNP-2

UCSNP-1

ATSV

GPR35

VNTR-2

VNTR-1

UC-65

UC-64

UC-63

UC-62

UC-61

UC-60

UC-59

UC-58

UC-57

UC-56

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UC-54

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UC-48

UC-47

UC-46

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UC-44

UC-43

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UC-20

UC-19

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UC-17

UC-16

UC-15

UC-14

UC-13

UC-12

UC-11

UC-10

UC-9

UC-8

UC-7

UC-6

UC-5

UC-4

UC-3

UC-2

UC-1

FIG. 3



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APPROVED BY DRAFTSMAN	O.G. FIG.	SUBCLASS
	CLASS	

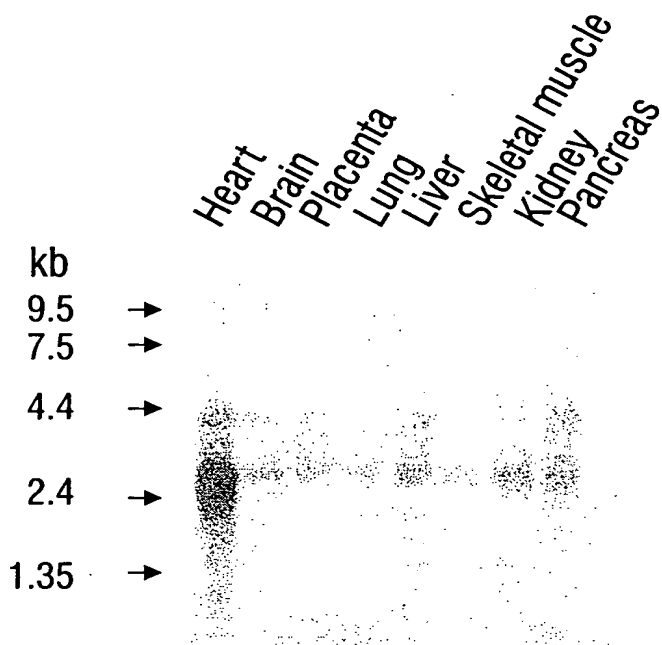


FIG. 4



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hCAPN5

MFSCVKPYEDQNYSA LRQDCRRRK'
MVDVVIDERLPTVNNQLIYCHSNSI
RKVRLGHGLLAFFKSEKLDMI RLR
QYIFEVKKPEDEVLCIQQRPKRS'
VTQVHVLGAAGLKDSP TGANSYVI:

mCAPN6

MGPPLKLFKNQKYQELKQECMKDGI
EWTEVVIDDLLPTINGDLVFSFST:
IRKLRLGERLVEVFSTEKLYMVRLI
IFTVPEDGHKVMISLQQKDLRTYRI
VTQITVHSAEGLEKKYANETVNPY:

hCAPN3

MPTVISASVAPRTAAEPRSPGPVPI
WFLAAIACLT LNQHLLFRVIPHDQ:
GSLMGCSIDDGTNMTYGTSPSGLNI
QHQVTEDEGEFWMSYEDFIYHFTKLI
KQHLQKDFFLYNASKARSKTYINMI
QESEEQQQFRNIFKQIAGDDMEIC:
MNIDFDSFICCFVRLEGMFRAFHAI

FIG. 5A

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VL FEDPLFPATDDSLYYKGTPGP AV
RNEFWCALVEKAYAKLAGCYQALDG
NPWGEREWNGPWS DTSEEWQKVS KS
TRREGKGENLAIGFDIYKVEENRQY
IKCEGDKVRS AVQKGTSTPEYNVKG

RLFC DPTFLP ENDSLFFNRLLP GK V
SMNEFWNALLEKAYAKLLGCYEALD
RNPLGRQEWSGPWSEISEEWQQLT V
RMGRPDNYIIGFELFKVEMNRRFRL
LIIKCGKEEVRS PVQKNTVHAIFDT

HPAQSKATEAGGGNPSGIYS AIISR
SFIENYAGIFHFQFWRYGEWVDVVI
MGELIARMVRNMDNSLLQDSDLDPR
EICNLTADALQSDKLQTWTVSVNEG
REVSQRFRLLPPSEYVIVPSTYEPHQ
ADELKKVLNTVVNKHKDLKTHGFTL
FDKDG DGI IKLNVLEWLQLTMYA 8

FIG. 5B



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RWKRPKGICEDPRLFVDGISSHDLH
GNTADALVDFTGGVSEPIDLTEGDF
EREKMGVTVQDDGEFWMTFEDVCRY
RMHSLQHKAAASSIYINSRSVFLRTD
IFYRKKLSQPITVQVWNHRVLKDEF

VWKRPQDISDDPHLIVGNISNHQLI
GLTITDIIMDFTGTLAEIIDMQKGR
TDRKNLGLVMSDDGEFWMSLEDFCH
HHLYIQERAGTSTYIDTRTVFLSKY
QAVFYRRTTDIPIIIQVWNSRKFC

NFPIIGVKEKTFEQLHKKCLEKKVL
DDCLPTYNNQLVFTKSNHRNEFWSA
GSDEPRTRTIIPVQYETRMACGLVR
RWVRGCSAGGCRNFPDFTWNPQYR
EGEFILRVFSEKRNLSEEVENTISV
ESCRSMIALMDTDGSGKLNLEFHH

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FIG. 5C

QGQVGNCWFVAACSSLASRESLWQK
ANDETKRNQLFERMLKVHSRGGLIS
FTDIIKCRVINTSHLSIHKTWEEAR
QPEGRYVIIPTTFEPGHTGEFLLRV
LGQVHLKADPDNLQALHTLHLRDRN

QGR LGNKAMISAFSCLAVQESHWT
KYTDLVEEKYKLFGE LYKTFTKGGLI
NFHKLNVCRNVNNPVFGRKELESVV
LKKGSYVLVPTMFQHGRTSEFLLRI
QFLGQVTLDADPSDCRDLKSLYL RK

YVDPEFP PDETS LFYSQKFPIQFVW
LLEKAYAKLHGSYEALKGGNTTEAM
GHAYSVTGLDEV PFKGEKV KLVRLR
LKLLEEDDDPDDSEVIC SFLVALMQ
DRPVKKKKTKPIIFVSDRANSNKE
LWNKIKAWQKIFKH YD TDQSGTINS

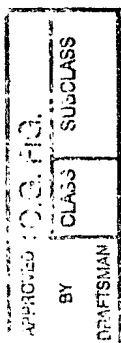
FIG. 5D

O.G. FIG.		SUBCLASS
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VIPDWKEQEWDPRKAQAYAGIFHFH
ASIKAVTAADMEARLACGLVKGHAY
LHGAWTLHEDPRQNRGGGCINHKDT
FTDVPSNCRELRDKPPHTCWSSLC
SRQPSNLPGTVAVHILSSTSLMAV



AIPNHKDDQEWDPRKPEKYAGIFHFR
CCSIESPSQEEQEVEDWGLLKGYT
GCWTVDDDDPLMNRSGGCYNNRDTFL
FSEVPVQLRELTLDMPKMSCWNLAR
KGGPTAKVKQGHISFKVISSDDLTE

KRPPEICENPRFIIDGANRTDICQG
EDFTGGVAEFFEIRDAPSDMYKIMK
NPWGQVEWNGSWSDRWKDWSEFVDKD
KNRRRKDRKLGASLFTIGFAIYEVPK
GVDQESEEGKGKTSPPDKQKQSPQPQ
YEMRNAVNDAGFHLNNQLYDIITMR

FIG. 5E



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FWRLG
AVTDV
FFQNP
GYPQL
639

O.C. FIG.		SUBCLASS
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FWHFG
YTMTD
QNPQY
GYPKV
L 641

ELGDC
KAIER
EKARL
EMHGN
PGSSD
YADKH

FIG. 5F

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hCAPN9

MPYLYRAPGPQAHVPK DARITHS
IFHFQFWQHSEWLDVV IDDR LPTF
TGIDQVSFRGQRIELIRIRNPWGQ
DEGQEECSFLVALMQKDRRKLKRF
TEEEQRFRA LFEQVAGEDMEVTAE
LDFDDFLNCLVRL ENASRVFQALS

hCAPN1

MSEEIITPVYCTGVSAQVQKQRAR
LLHRVVP H GQSFQNGYAGIFHFQL
DMEAITFKKL VKGHAYSVTGAKQV
PATFWVNPQFKIRLDETDDPDDYG
KSAGTVELDDQIQANLPDEQVLSE
SAGFKLNKKLYELIITRYSEPDLA

hCAPN2

MAGIAAKLAKDREAAEGLGSHERA
SFQENYAGIFHFQFWQYGEWVEVV
VKGHAYSVTGAEEVESNGSLQKLI
LIKLEEEDEDEEEDGESGCTFLVGL
EANLEEFDIS EDDIDDGVRRLFAQ
IVARFADDQLIIDFDNFVRCLVRL

FIG. 5G



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SGQSFEQMRQEC LQRGTLFEDADFP
RDRLVFLHSADHNEFW SALLEKAYA
VEWNGSWS DSSPEWRSVGP AEQKRL
GANVLTIGYAIYEC PDKDEHLN KDF
ELEYVLNAV LQKKKDIKF KLSLIS
TKNKEFIHLN INEFIH LTMNI 690

ELGLGRHENA IKYLGQDYEQLRVRC
WQFGEWVDVV VDDLLPIKDGKLVFV
NYRGQVVS LIRMRNPWGEEVWTGAW
DRESGCSFVLALMQKHRRRERRRFRGR
EEIDENFKALFRQLAGEDMEISVKE
VDFDNFVCC LVRLETMFRFFKTLD T

IKYLNQDYEALRNECLEAGTLFQDP
VDDRLPTKDGELLFVHSAEGSEFWS
RIRNPWGEEVWTGRWNDNCPSWNTI
IQKHRRRQRKMGEDMHTIGFGIYEV
LAGEDAEISAFELQ TILRRVLAKRQ
ETLFKIFKQLDPENTGTIELDLISW

FIG. 5H



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SGQSFEQMRQEC LQRGTLFEDADFP
RDRLVFLHSADHNEFWSALLEKAYA
VEWNGSWSDSSPEWRSVGP AEQKRL
GANVLTIGYAIYEC PDKDEHLNKF
ELEYVLNAV LQKKKDIKFKKLSLIS
TKNKEFIHLNINEFIH LTMNI 690

ELGLGRHENAIKYL GQDYEQLRVRC
WQFGEWVDVVD DDLPIKDGKLVFV
NYRGQVVS LIRMRNPWGEVEWTGAW
DRESGCSFVLALMQKHRRRERREFGR
EEIDENFKALFRQL AGEDMEISVKE
VDFDNFVCC LVRL ETMFRFFKTLD T

IKYLNQDYEALRNEC LEAGTLFQDP
VDDRLPTKDGELLFVHSAEGSEFWS
RIRNPWGEVEWTGRWNDNCPSWNTI
IQKHRRRQRKMGEDMHTIGFGIYEV
LAGEDAEISAFELQTILRRVLAKRQ
ETLFKIFKQLDPENTGTIELDLISW

FIG. 5I



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ASNSSLFYSERPQIPFVWKRPGEIV
KLNGSYEALKGGS AIEAMEDFTGGV
CHTALDDGEFWMAFKDFKAHFDKVE
FRYHASRARSKTFINLREVSDRFKL
CKNIISLMDTSGNGKLEFDEFKVFVW

LQSGTLFRDEAFPPVPQSLGYKDLG
HSAEGNEFWSALLEKAYAKVNGSYE
SDSSSEWNNVDPYERDQLRVKMEDG
DMETIGFAVYEVPPELVGQPAVHLK
LRTILNRIISKHKDLRTKGFSLESC
DLDGVVTFDLFKWLQLTMFA 714

SFPAIP SALGFKE LGPYSSKTRGMR
ALLEKAYAKINGCYEALS GGATTEG
DPEERERLTRRHEDGEFWMSFSDFL
PEELSGQTNIHLSKNFFLTNRARER
DIKSDGFSIETCKIMVDMLDSDGSG
LCFSVL 700

FIG. 5J



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KNPEFILGGATRTRDQCQGE LGDCWL
AETFQTK EAPENFY EILEKALKRGS
ICNLTPDALEEDAIHKWEVTVHQGS
PPGEYILIPSTFEPHQEADFCRLRIF
DKLKQWINLFLRFDADKSGTMSTYE

PNSSKTYGIKWKRPTTELLSNPQFIV
ALSGGSTSEGFEDFTGGVTEWYELR
EFWMSFRDFMREFTRL EICNLTPDA
RDFFLANASRARSEQFINLREVSTR
RSMVNLMDRDGNGKLGLVEFNILWN

WKRPT EICADPQFIIGGATRTRDQC
FEDFTGGIAEWYELKKPPPNLFKII
RHYSRLEICNLTPDTLTS DTYKKWK
SDTFINLREVLNRFKLPPGEYILVP
KLGLKEFYILWTKIQKYQKIYREID

FIG. 5K



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LAAIASLTNLNQKALARVIPQDQSFG
LLGCFIDTRSAAESEARTPFGLIKG
WVRGSTAGGCRNFLDTFWTNPQIKL
SEKKAITRDMDGNVDIDLPEPPKPT
LRTALKAAAGFQLSSHLLQLIVLRYA

DGATRTDICQGALGDCWLLAAIASL
KAPSDLYQIILKALERGSLLGCSID
LKSRTIRKWNTTLYEGTWRRGSTAG
FRLPPGEYVVVPSTFEPNKEGDFVL
RIRNYLSIFRKFDLDKSGSMSAYEM

GALGDCWLLAAIASLTNLNEEILARV
QKALQKGSLLGCSIDITSAADSEAI
LTKMDGNWRRGSTAGGCRNYPNTFW
STFEPNKDGDFCIRVFSEKKADYQA
VDRSGTMNSYEMRKALEEAGFKMPC

FIG. 5L

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P G Y A G
H A Y S V
S L T E K
P P D Q E
D E E L Q

T L N D T
I S S V L
G C R N Y
R F F S E
R M A I E

V P L N Q
T F Q K L
M N P Q Y
V D D E I
Q L H Q V

FIG. 5M



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rCAPN8

MAALAAGVSKQRAVAEGLGSNQNA
SFQKDYAGIFHFQFWQYGEWVEVV
VKGHAYSVTGVEEVNFHGRPEKLI
KIHLEVEDEDQEEGTSEPCCTVLL
TVSGHPHEPHPRDMDEEDEHVRS
LQQTIAMRYACSKLGVDENG FVACM

hCAPN10

MRAGRGATPARELFRDAAFPAAADS
CLAGRLCFSRCQREDVFWLPLLEK
LRIQNPWGRRCWQGLWREGGEGWS
HAADWAGRARALVGDSHTSWSPAS
VQLRGSWRVGQTAGGSRNFASYPT
IDRPSIHSQEMLGQFLQEVSVMAV

FIG. 5N

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APPROVED FOR PUBLICATION	CLASS	SUBCLASS
BY		
DRAFTSMAN		

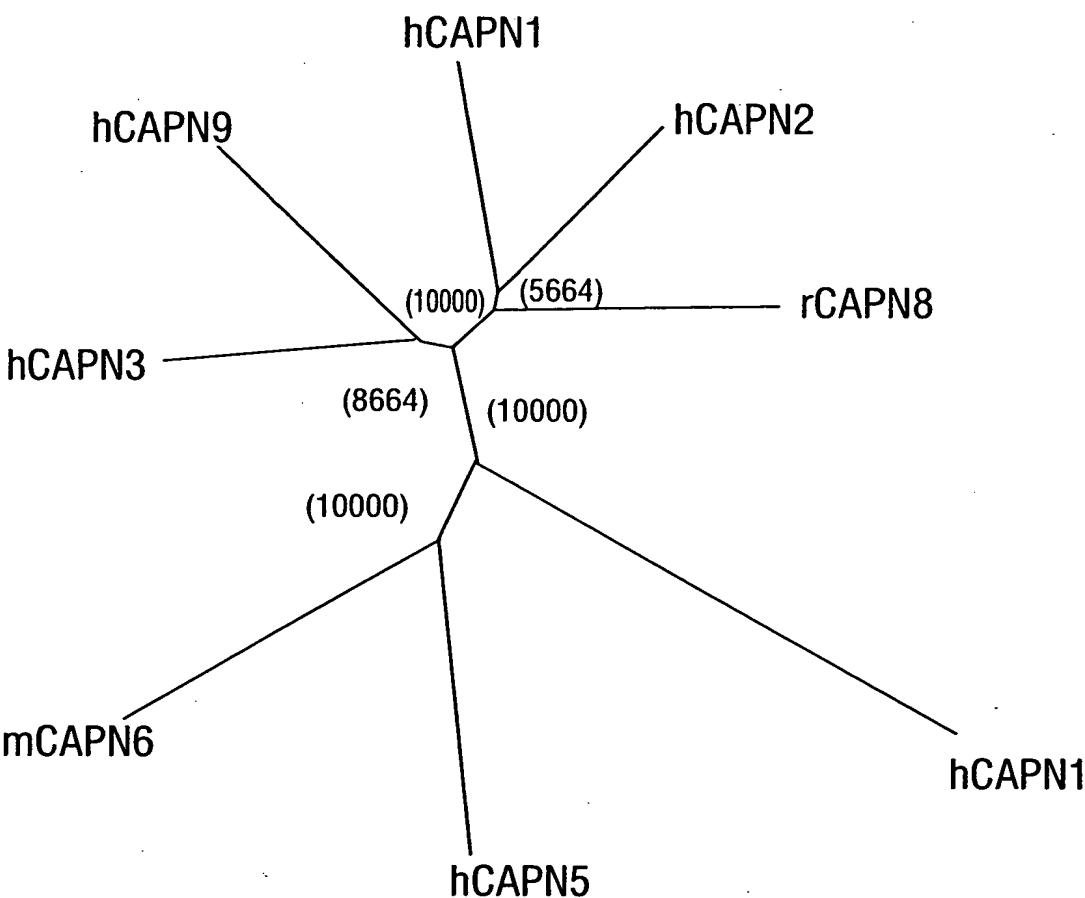


FIG. 6

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
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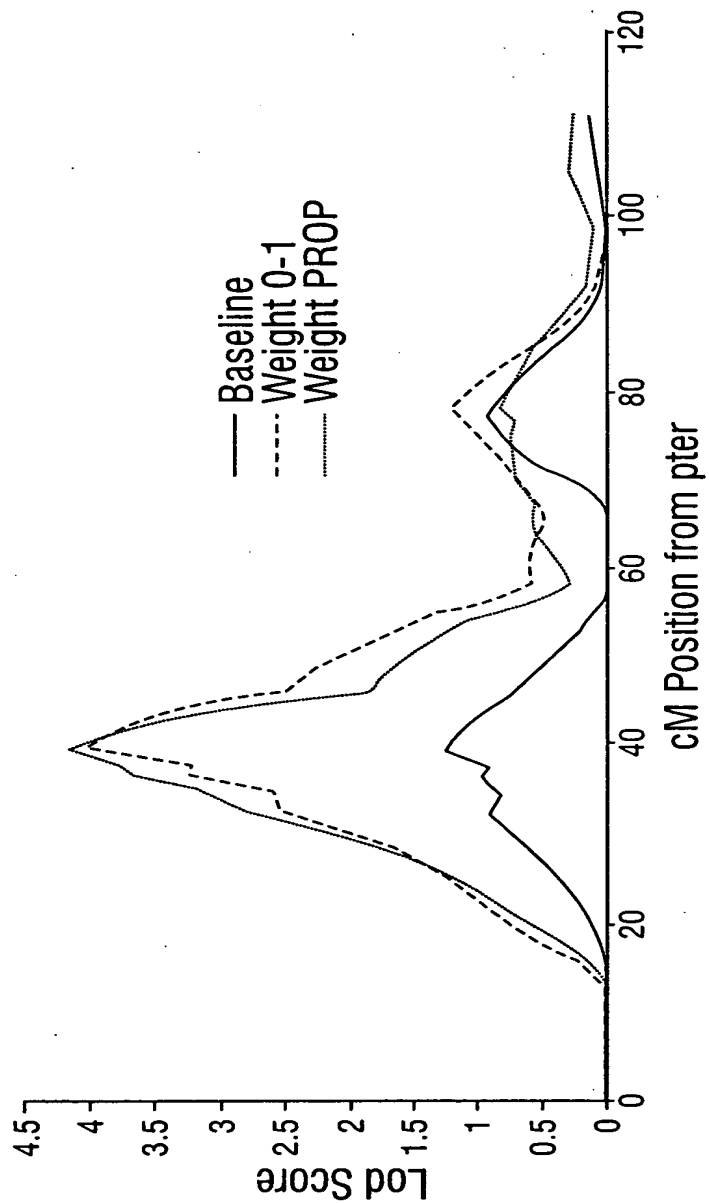


FIG. 7A

NO. DRAWN	NO. PAGES	CLASS	SUBCLASS
BY	CLASS		
DRAFTSMAN			

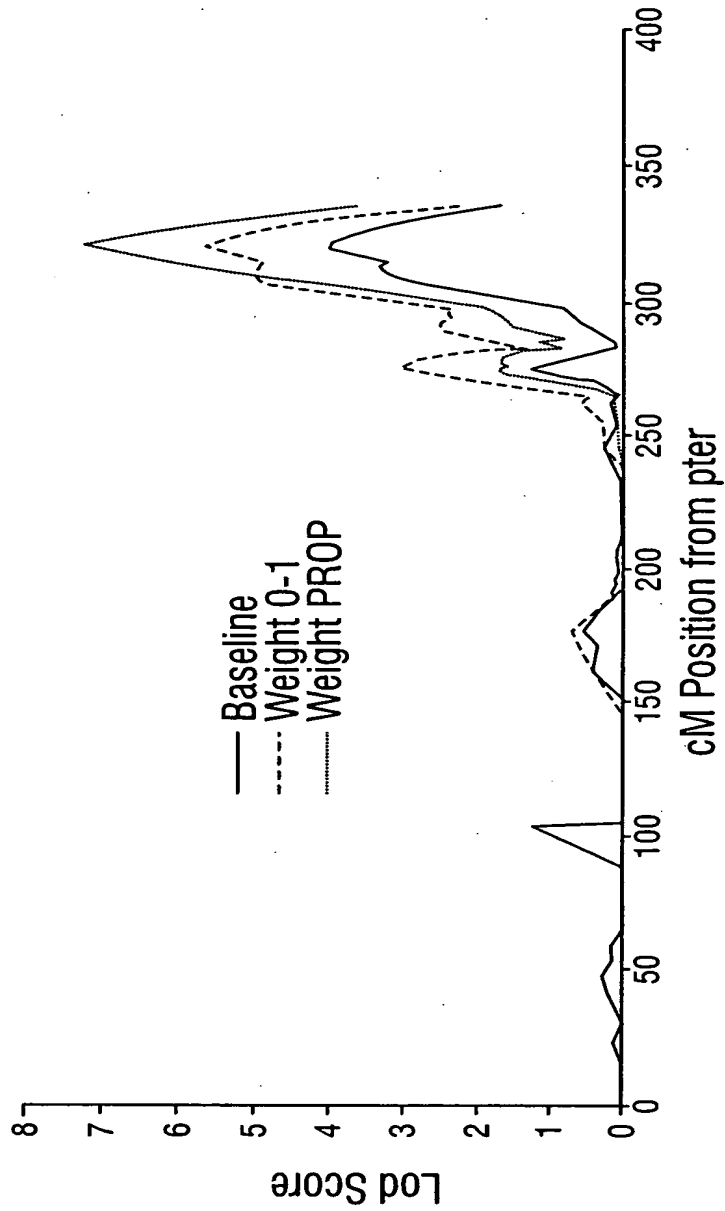


FIG. 7B



APPROVED	O.G. FIG.	
	CLASS	SUBCLASS
BY		
DRAFTSMAN		

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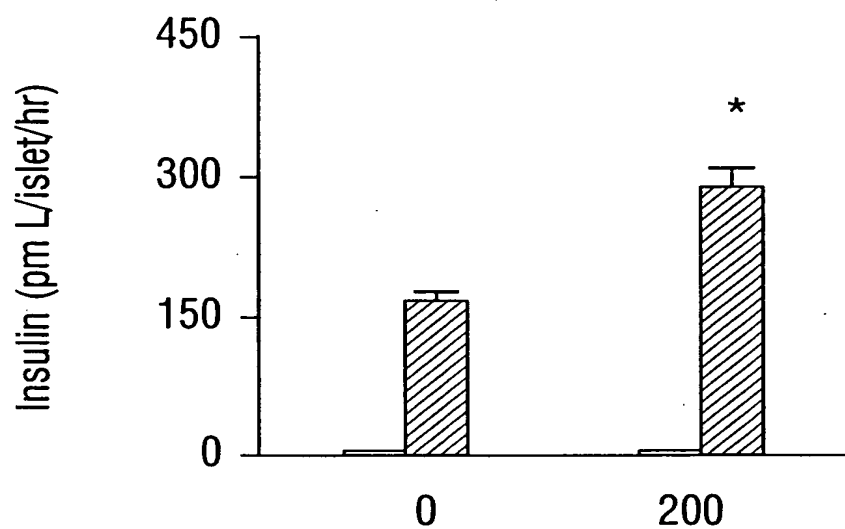


FIG. 8A

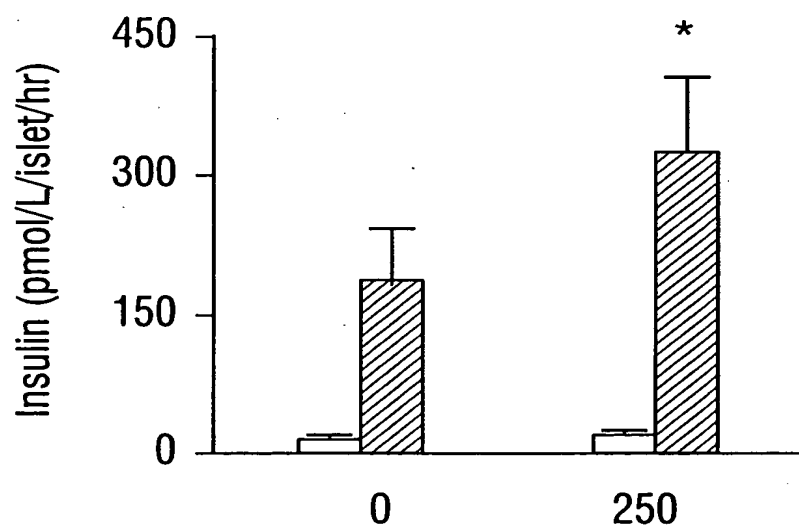


FIG. 8B

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APPROVED TO: C. FIG.	SUBCLASS
BY	CLASS
DRAFTSMAN	

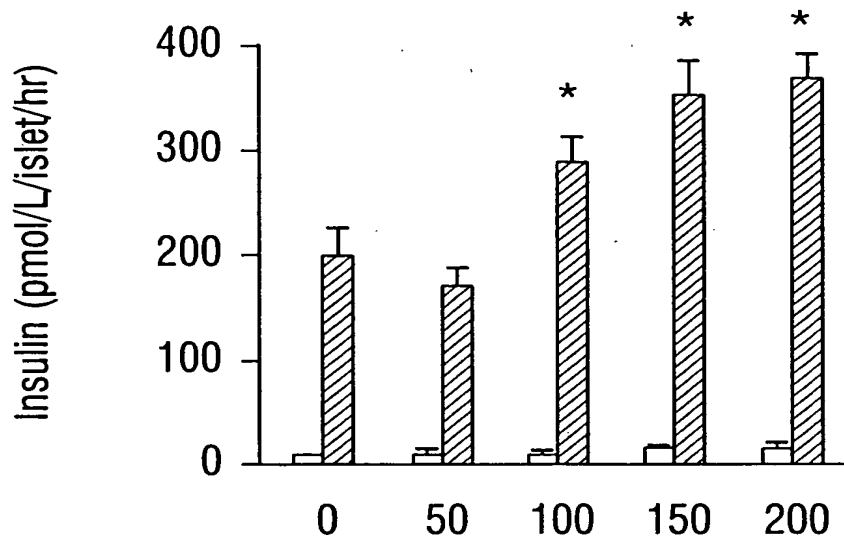


FIG. 8C

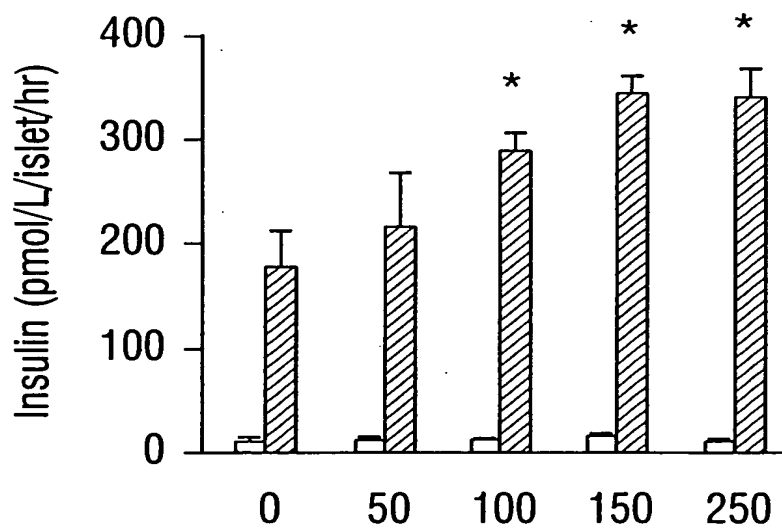


FIG. 8D

BY CLASS SUBCLASS
 DRAFTSMAN

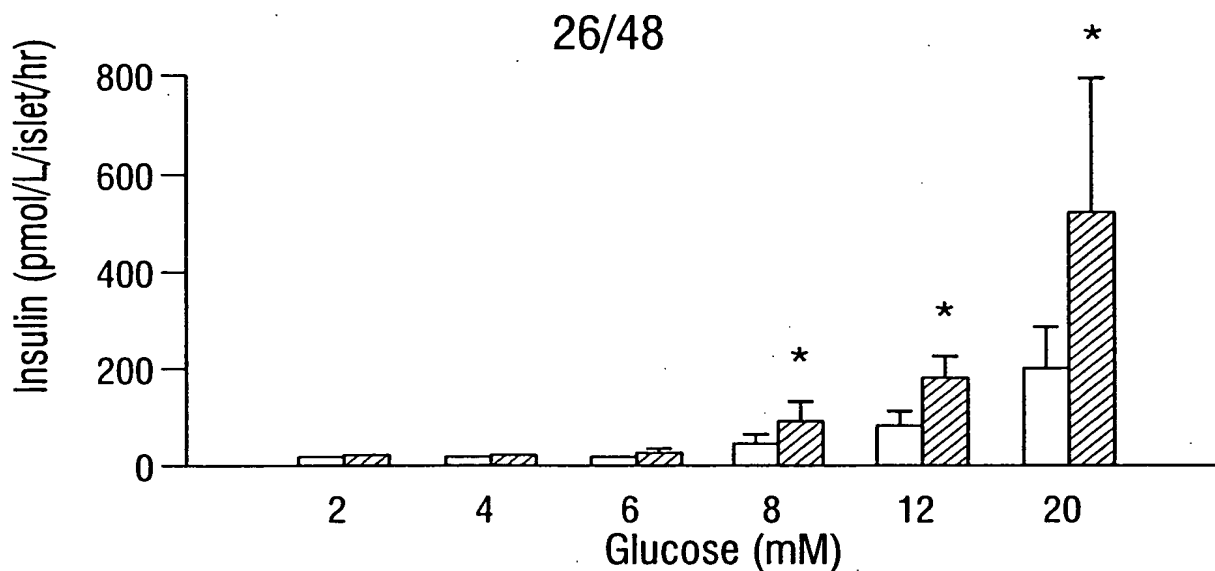


FIG. 9A

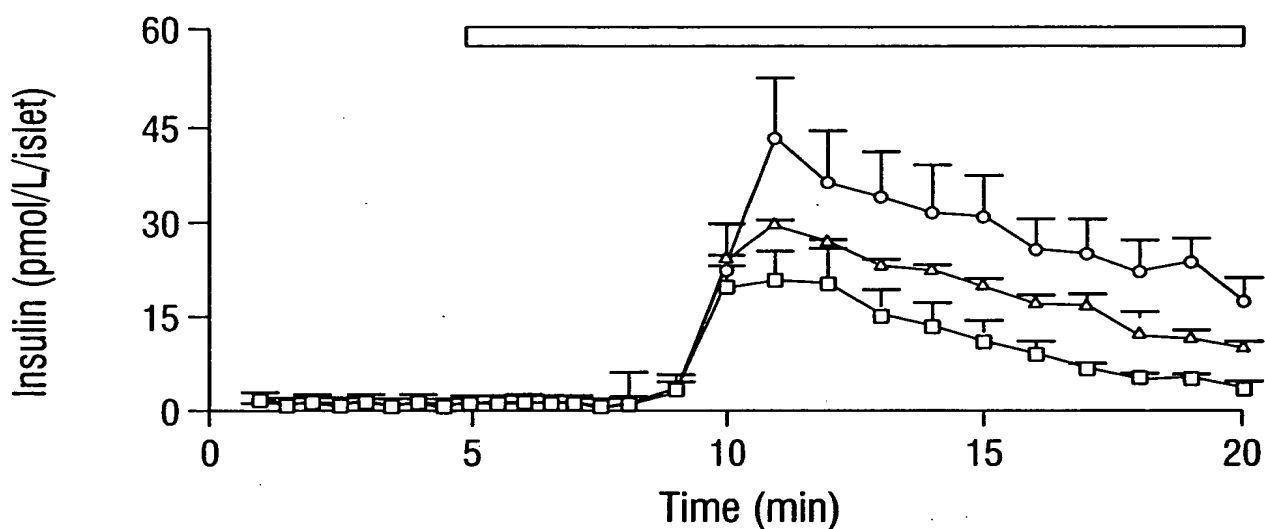


FIG. 9B

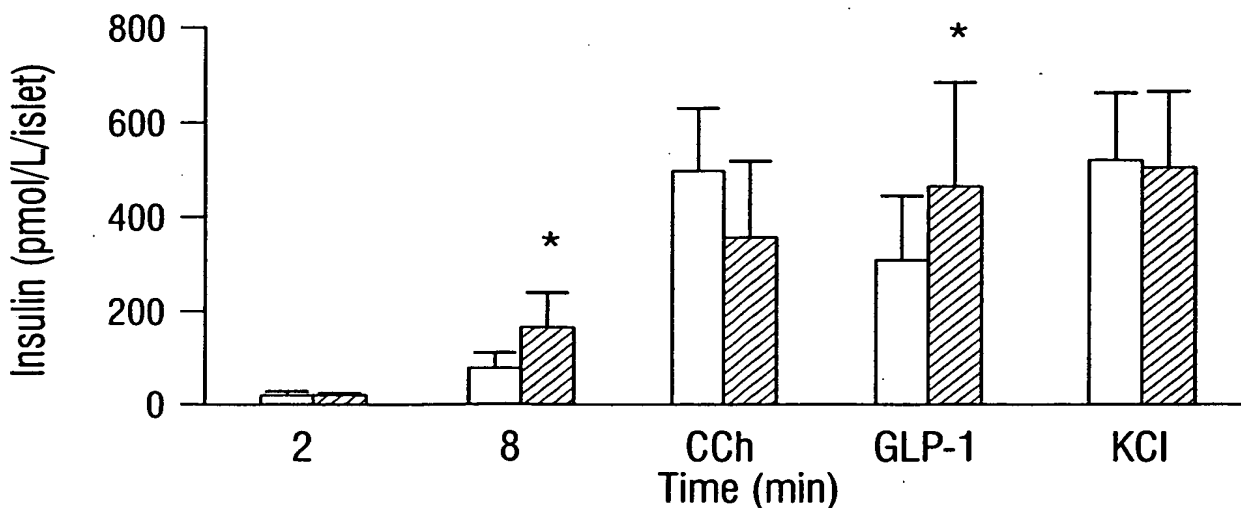


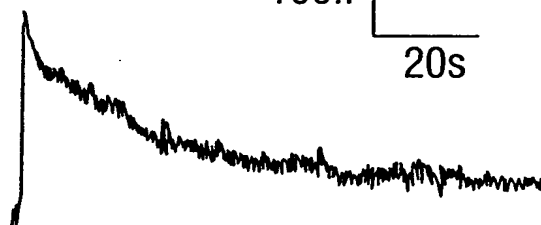
FIG. 9C

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Control



ALLM



100fF
20s

FIG. 10A

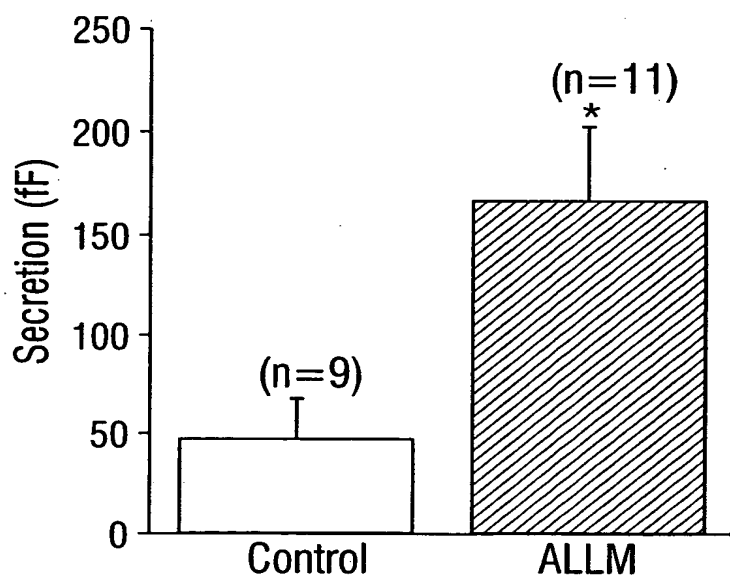


FIG. 10B

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APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
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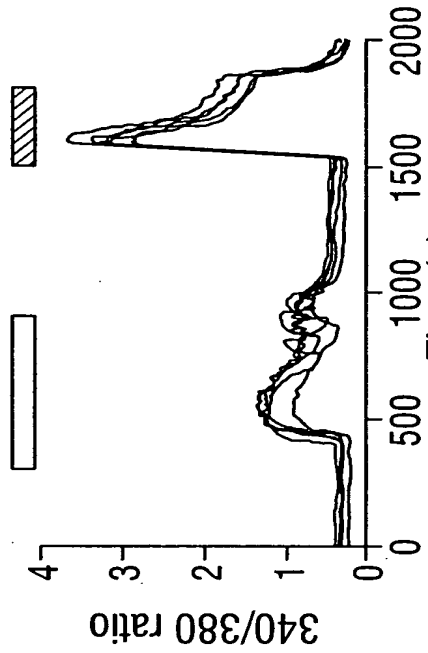


FIG. 11A

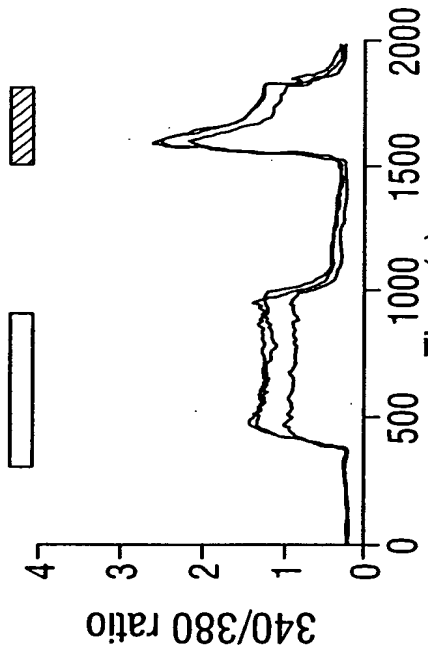


FIG. 11B

APPROVED	CLASS	SUCCESS
BY		
DRAFTSMAN		

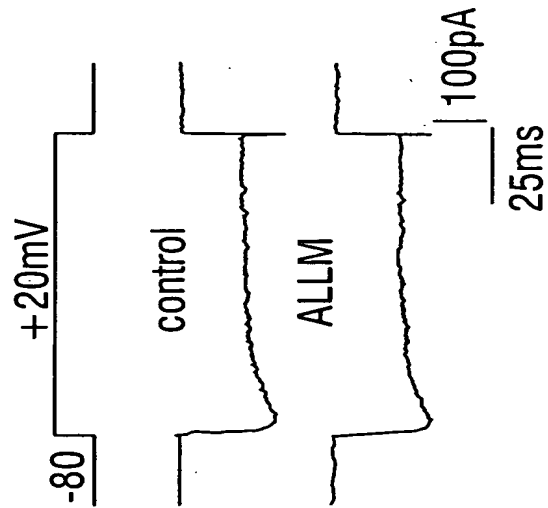


FIG. 11C

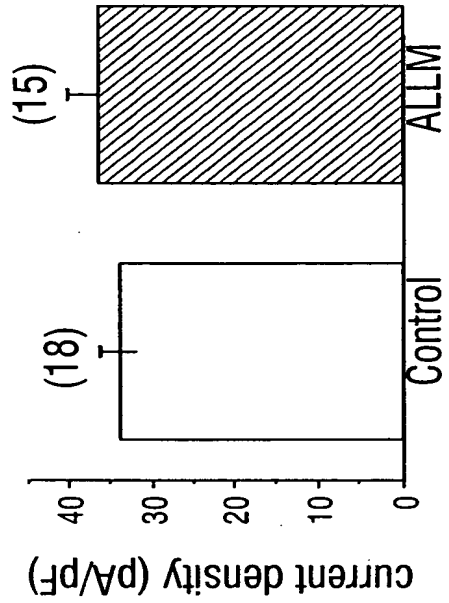


FIG. 11D

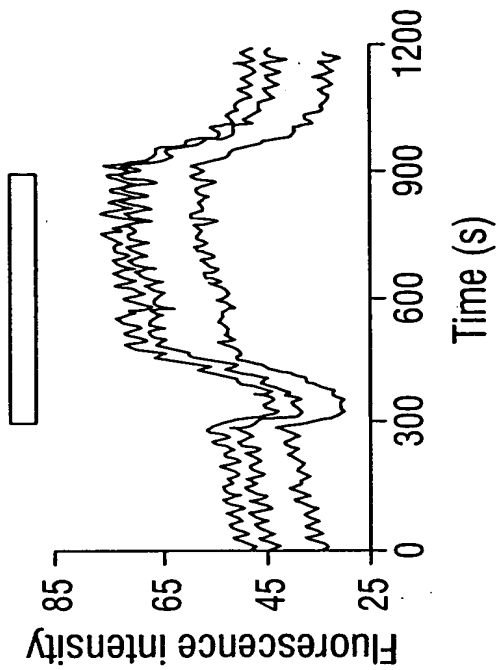
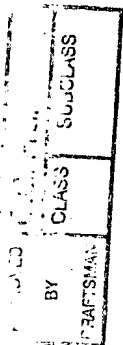


FIG. 11F

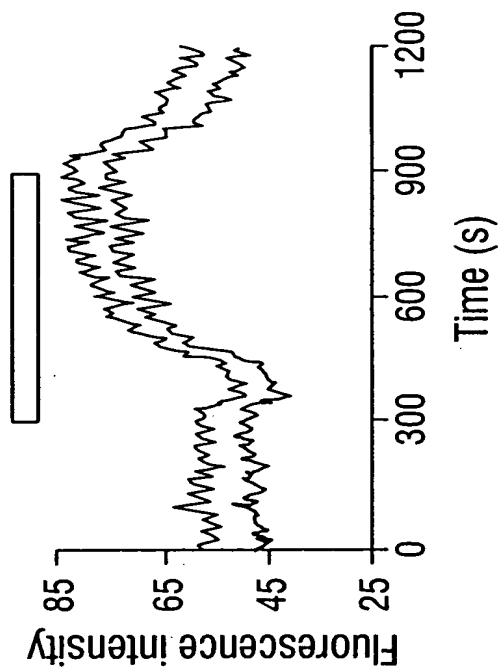
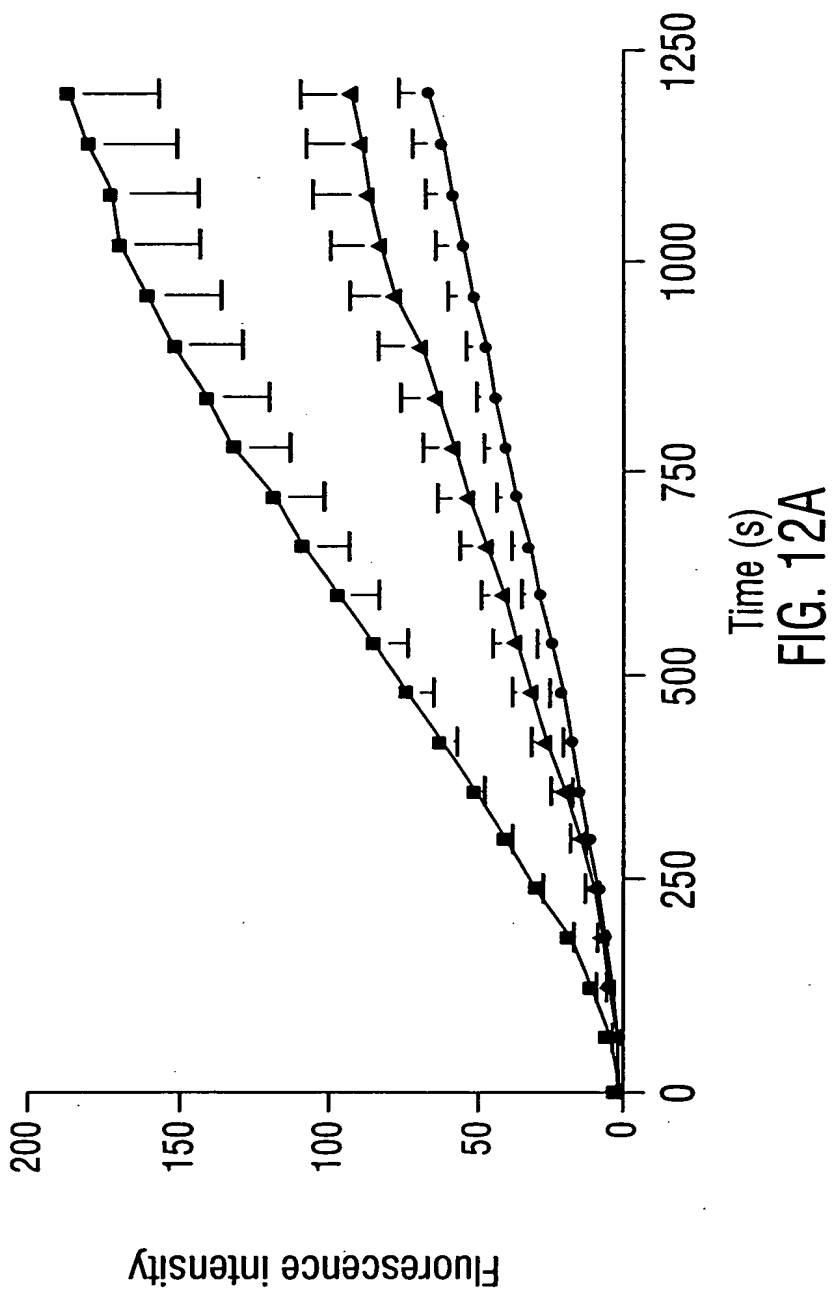
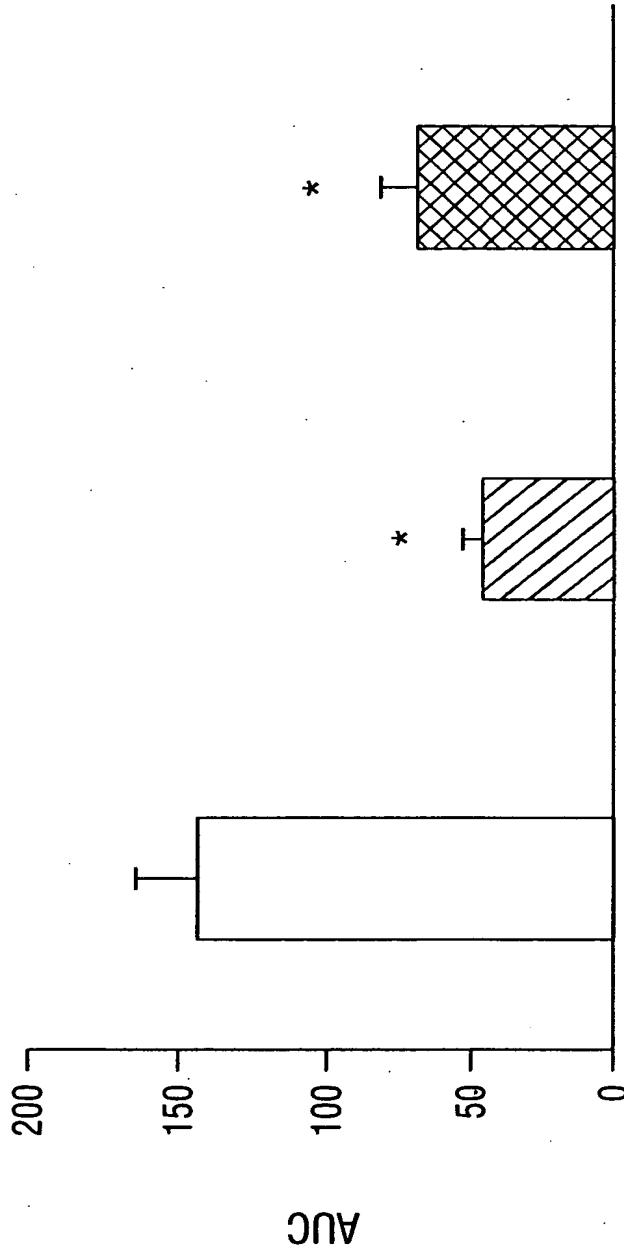


FIG. 11E

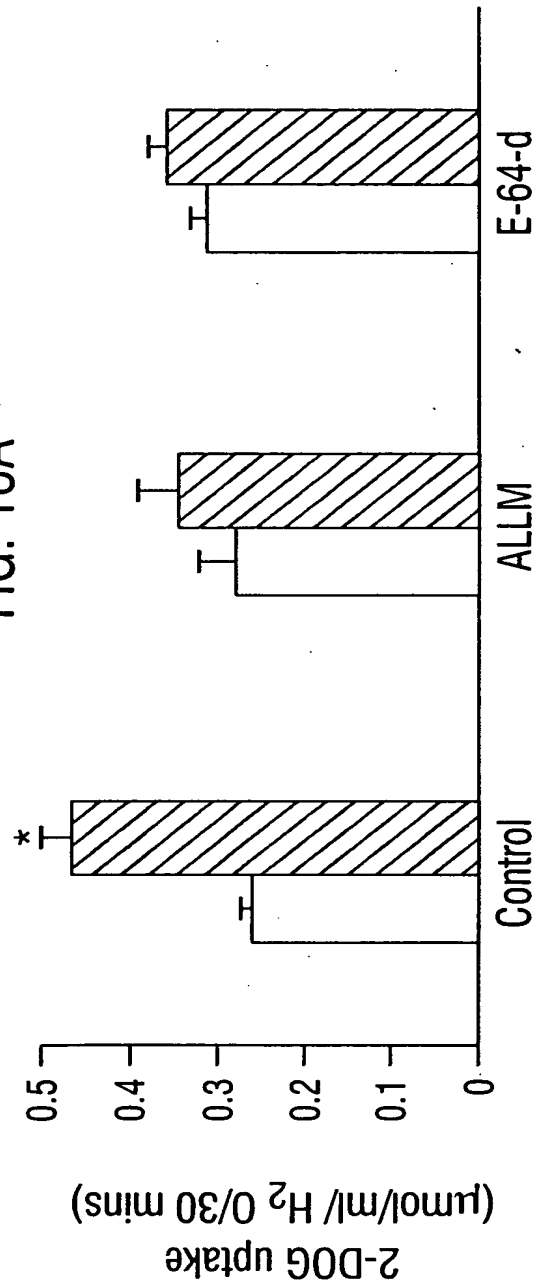
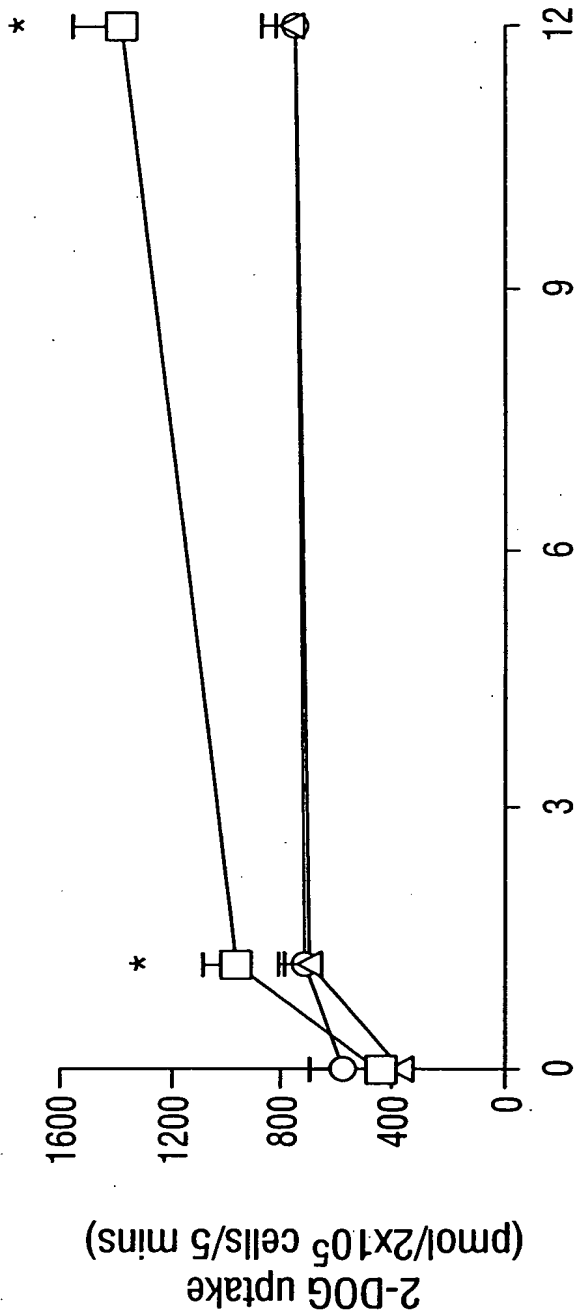
APPROVED	O.C. FIG.
BY	CLASS
DRAFTSMAN	SUBCLASS



APPROVED	O.C. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		



Time (s)
FIG. 12B



BY CLASS
 SUBCLASS
 SURAFISWAN

APPROVED	O.C. FIG.
BY	CLASS
DRAFTSMAN	SUBCLASS

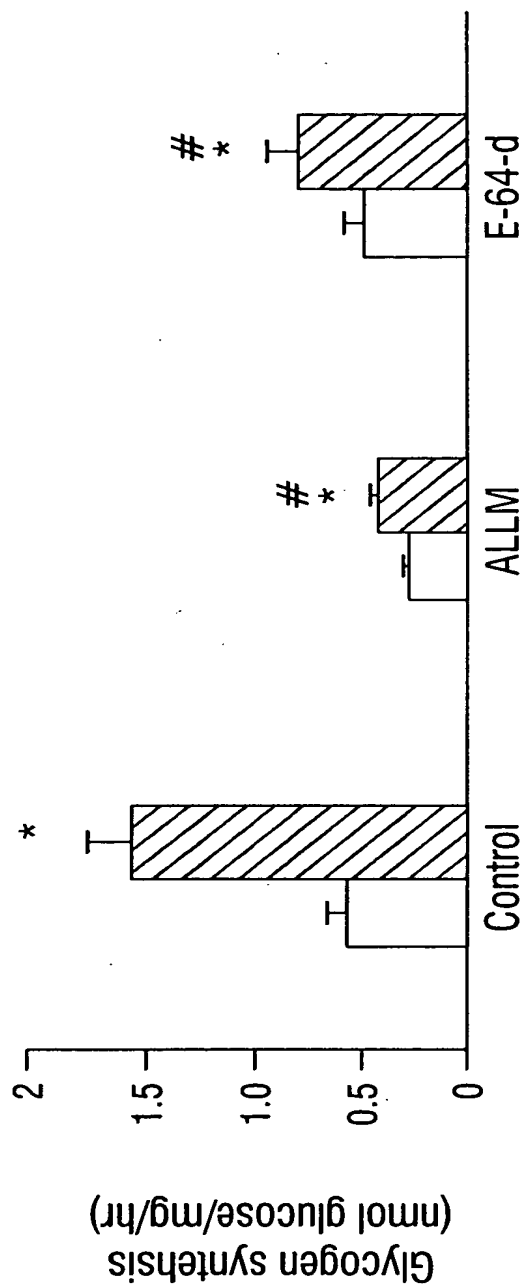


FIG. 13C



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APPROVED	CLASS	SUBCLASS
BY		
DRAFTSMAN		

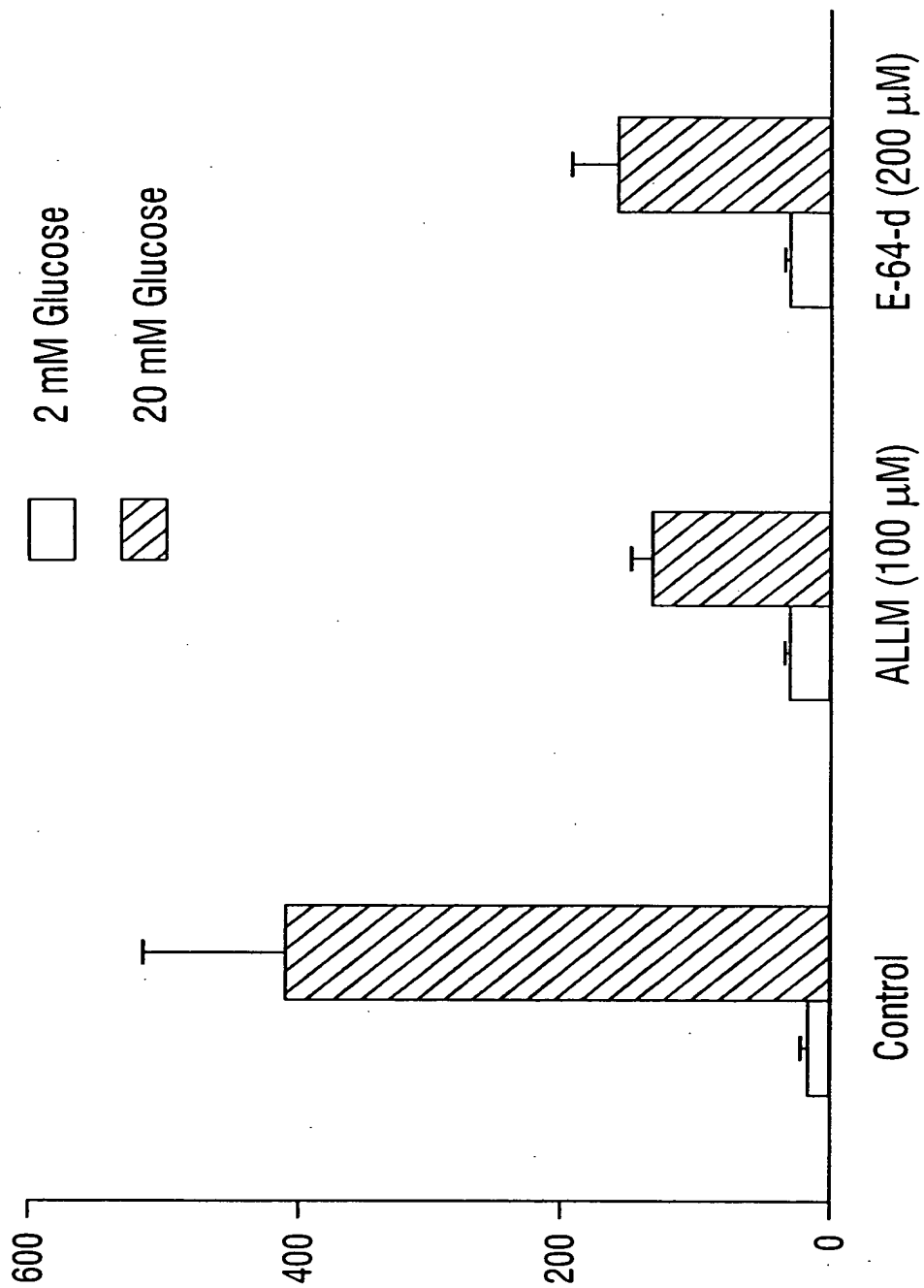


FIG. 14

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

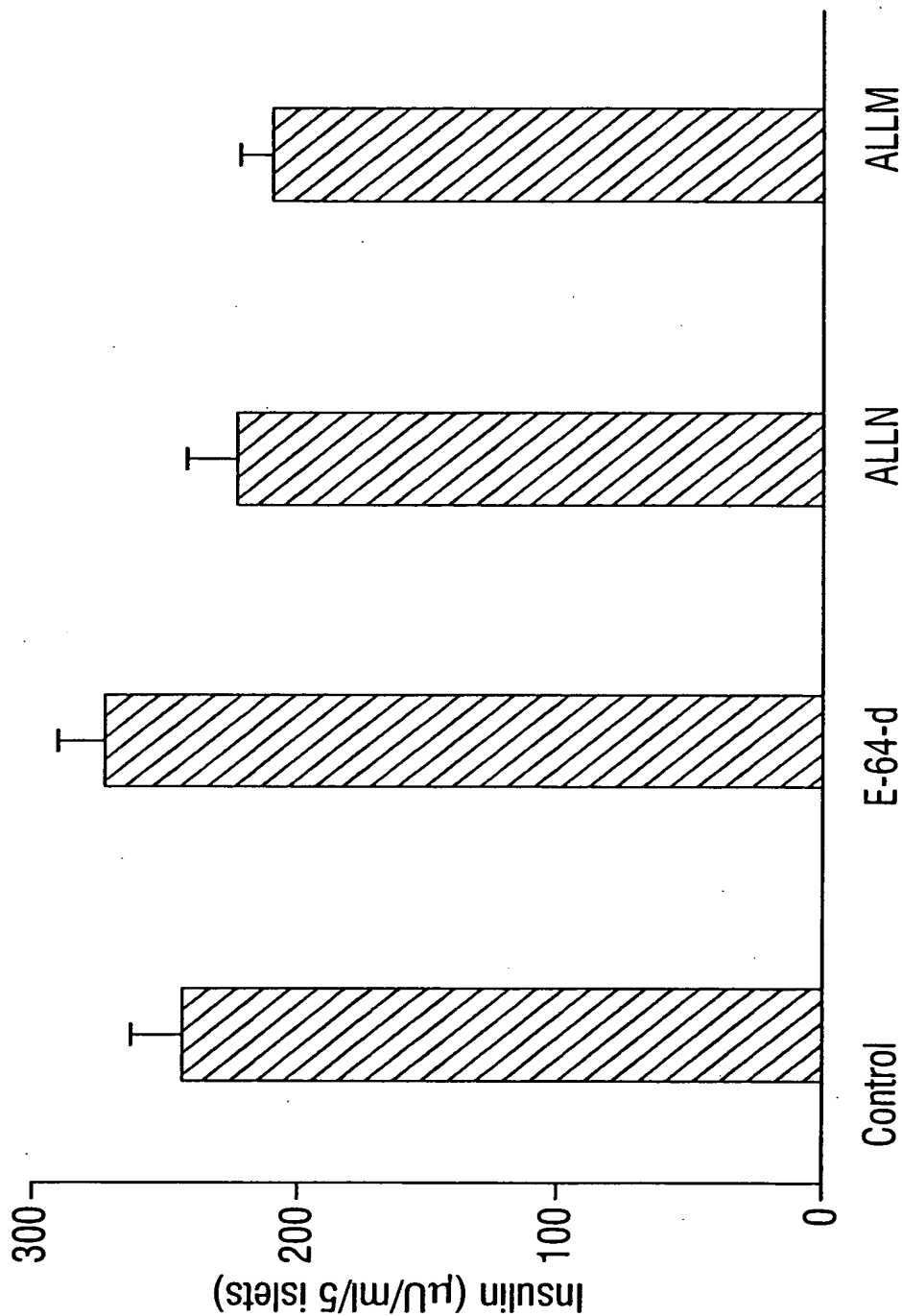


FIG. 15

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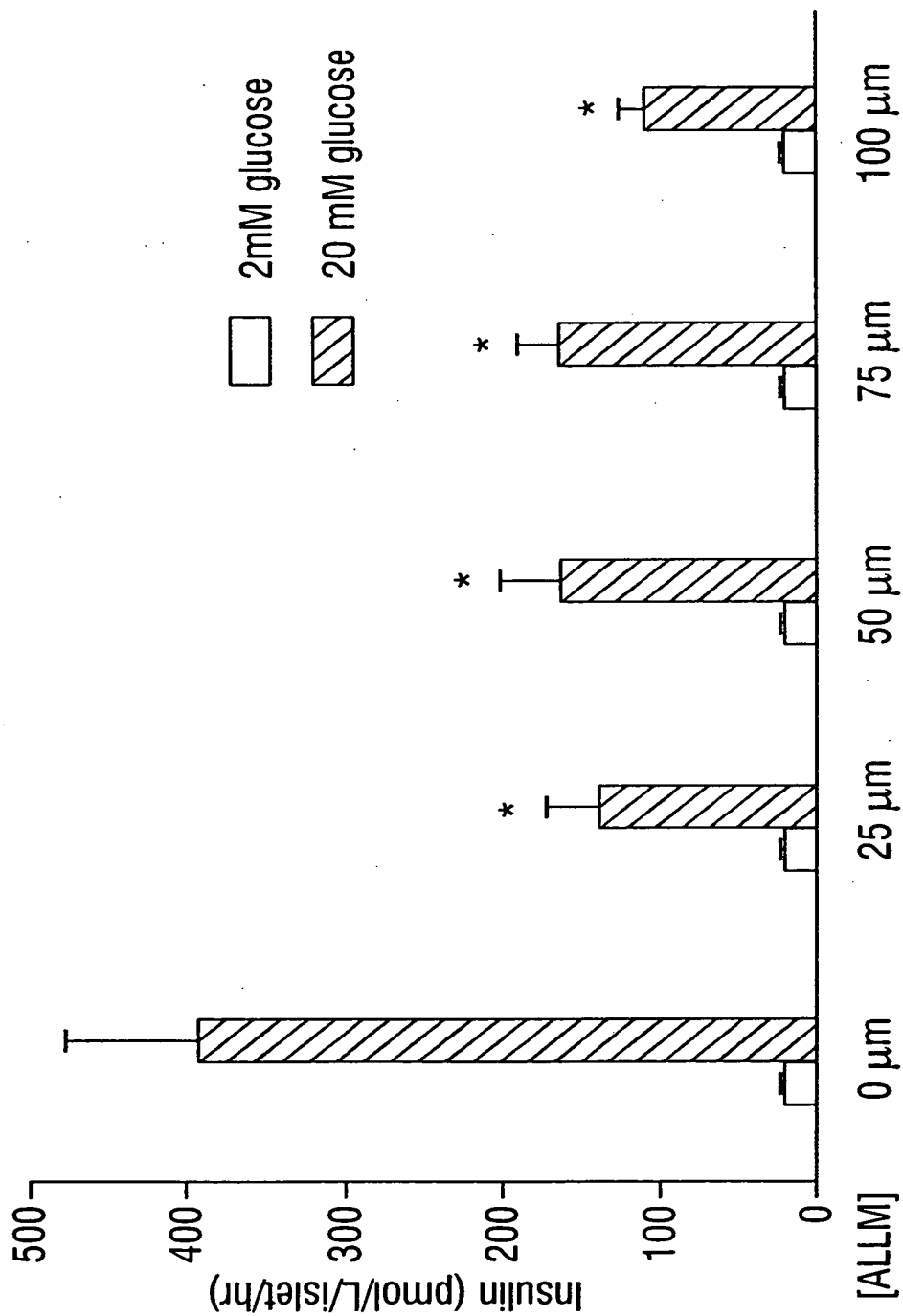


FIG. 16

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
CRAFTSMAN		

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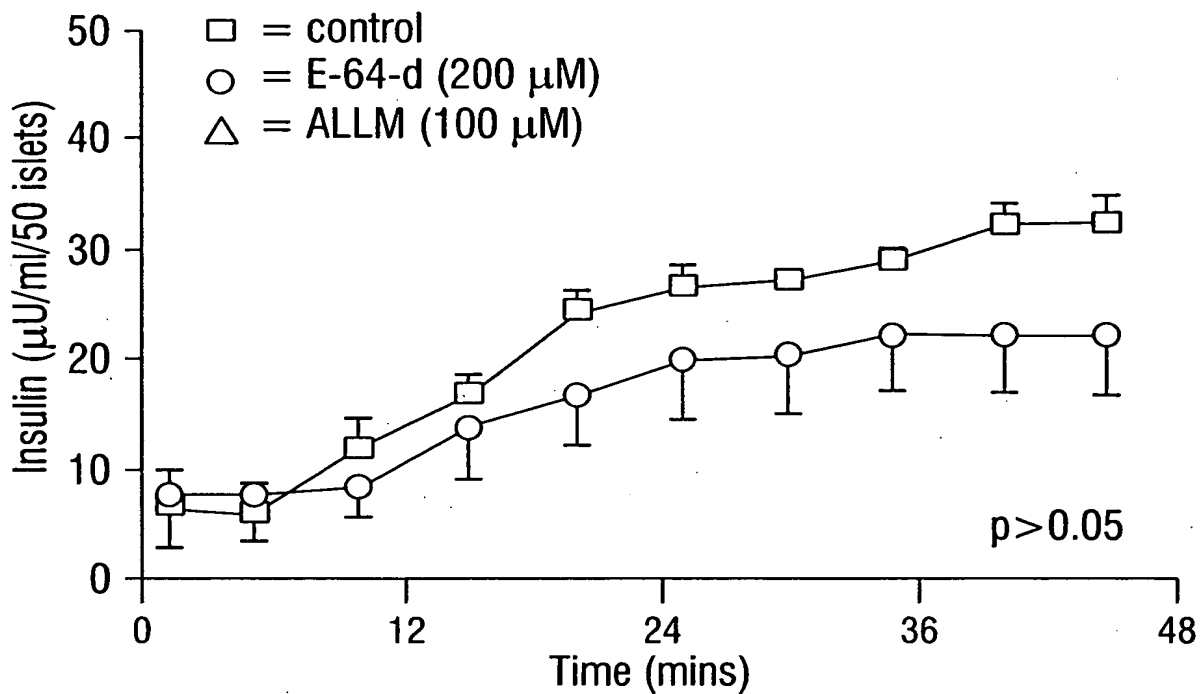


FIG. 17A

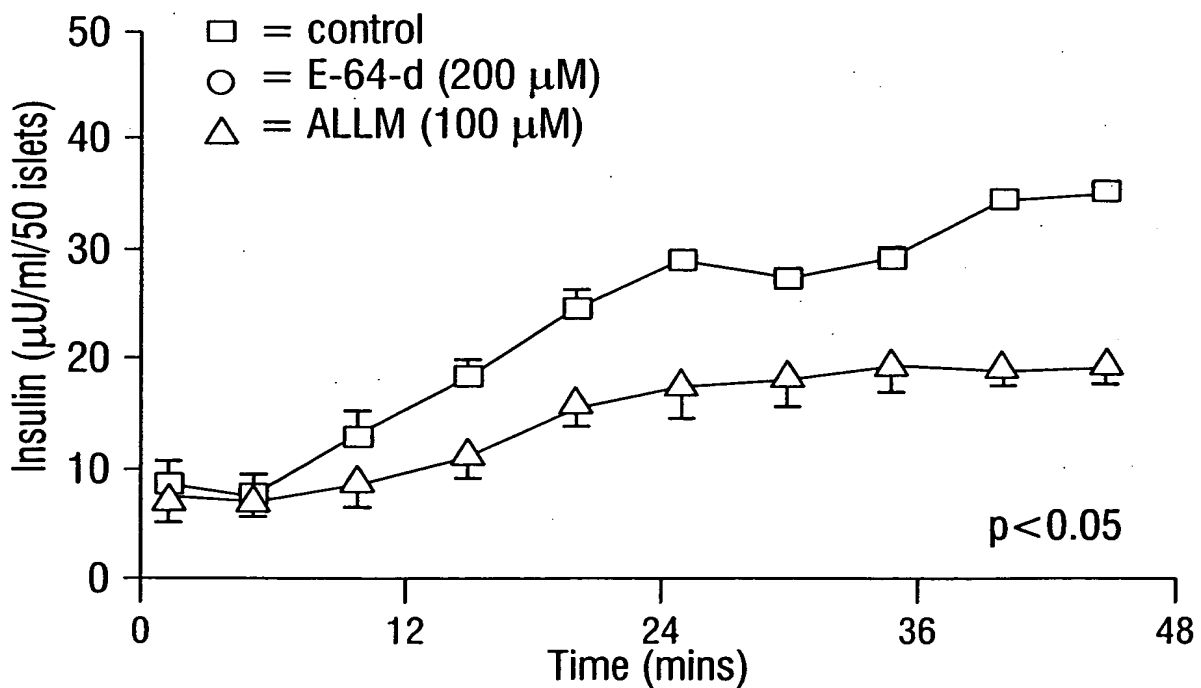
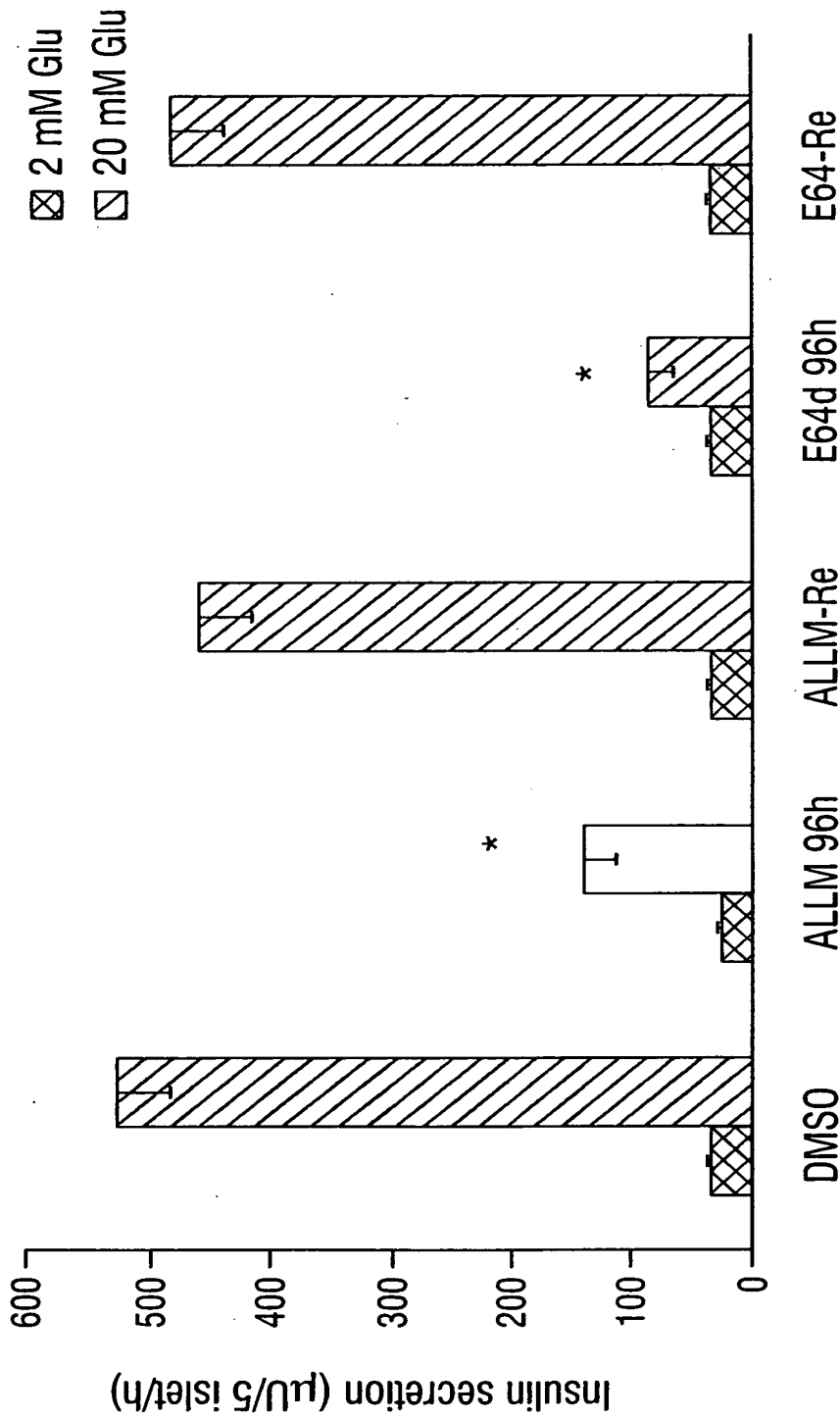


FIG. 17B

APPROVED BY CLASS SJDCLASS
 DRAFTSMAN



Treatment
 FIG. 18

RECEIVED
 BY CLASS
 SUCCESSION
 ADAPTATION

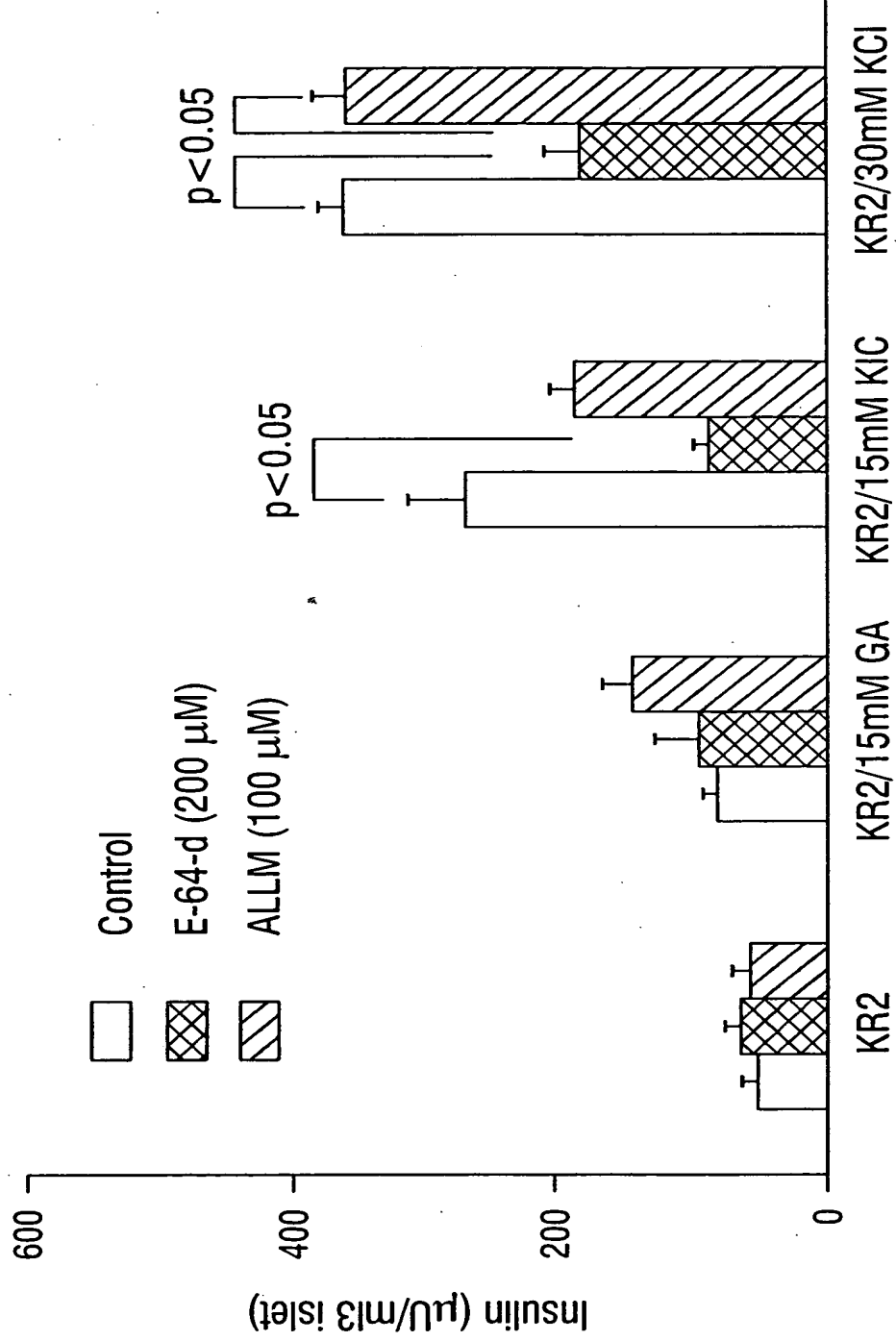
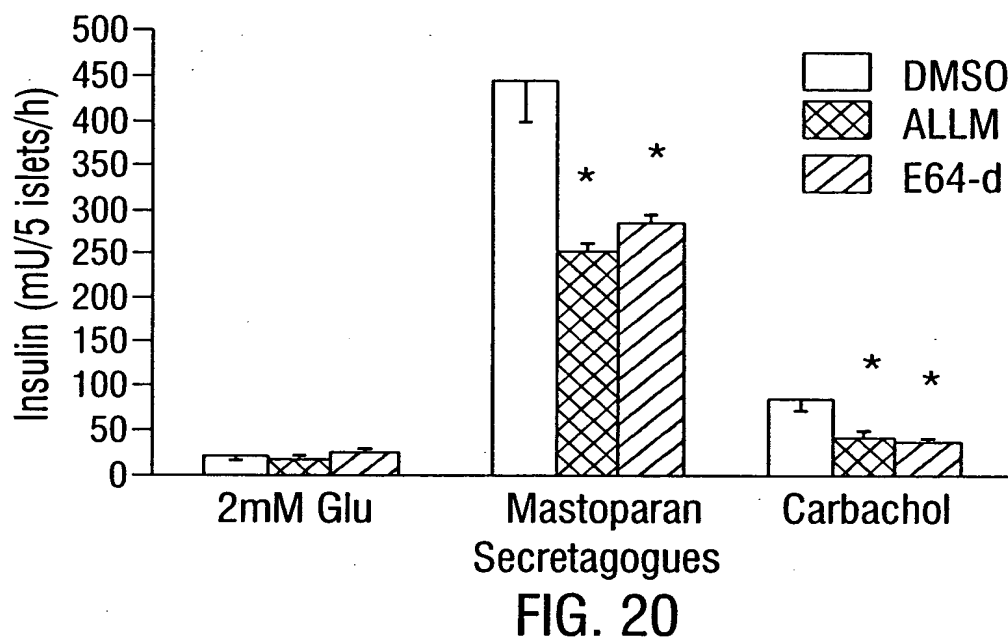


FIG. 19



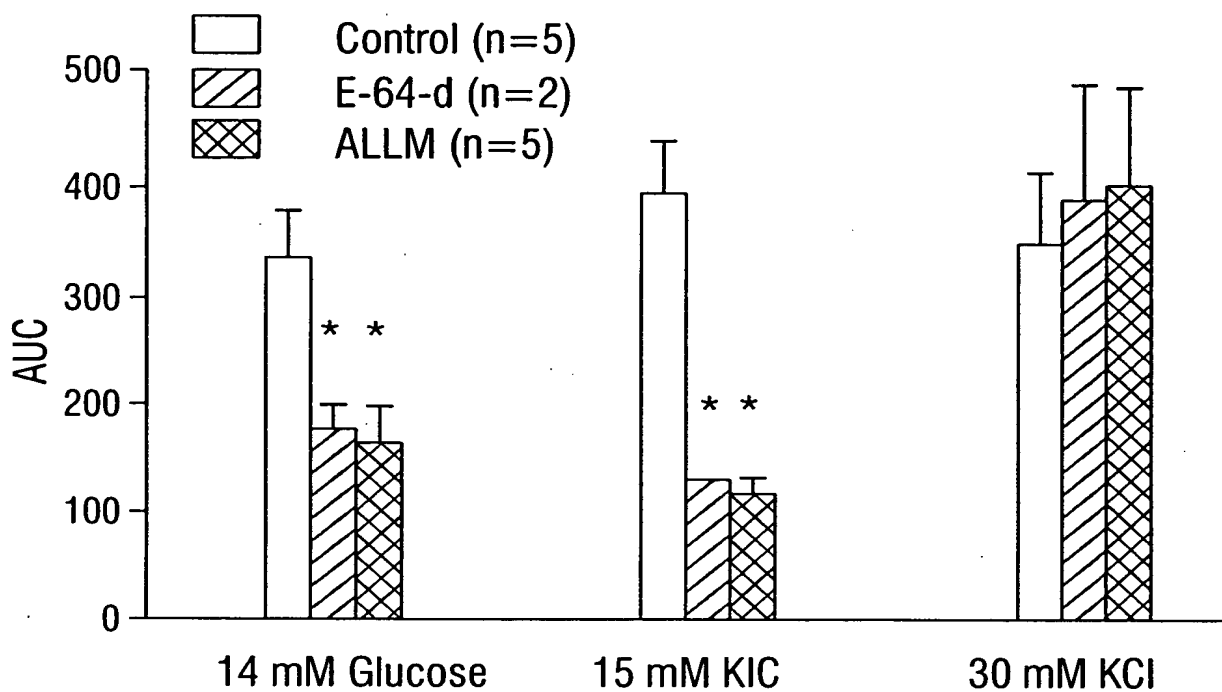


FIG. 21A

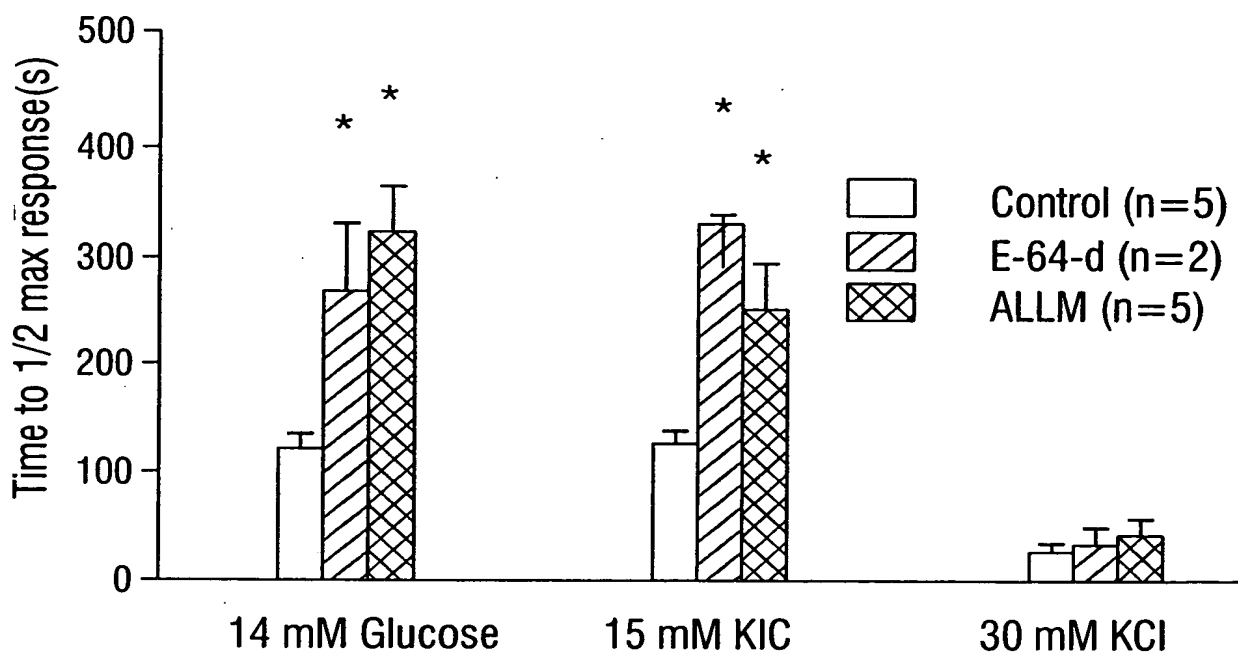


FIG. 21B

APPROVED	100.00	CLASS	SUBCLASS
BY			
DRAFTSMAN			

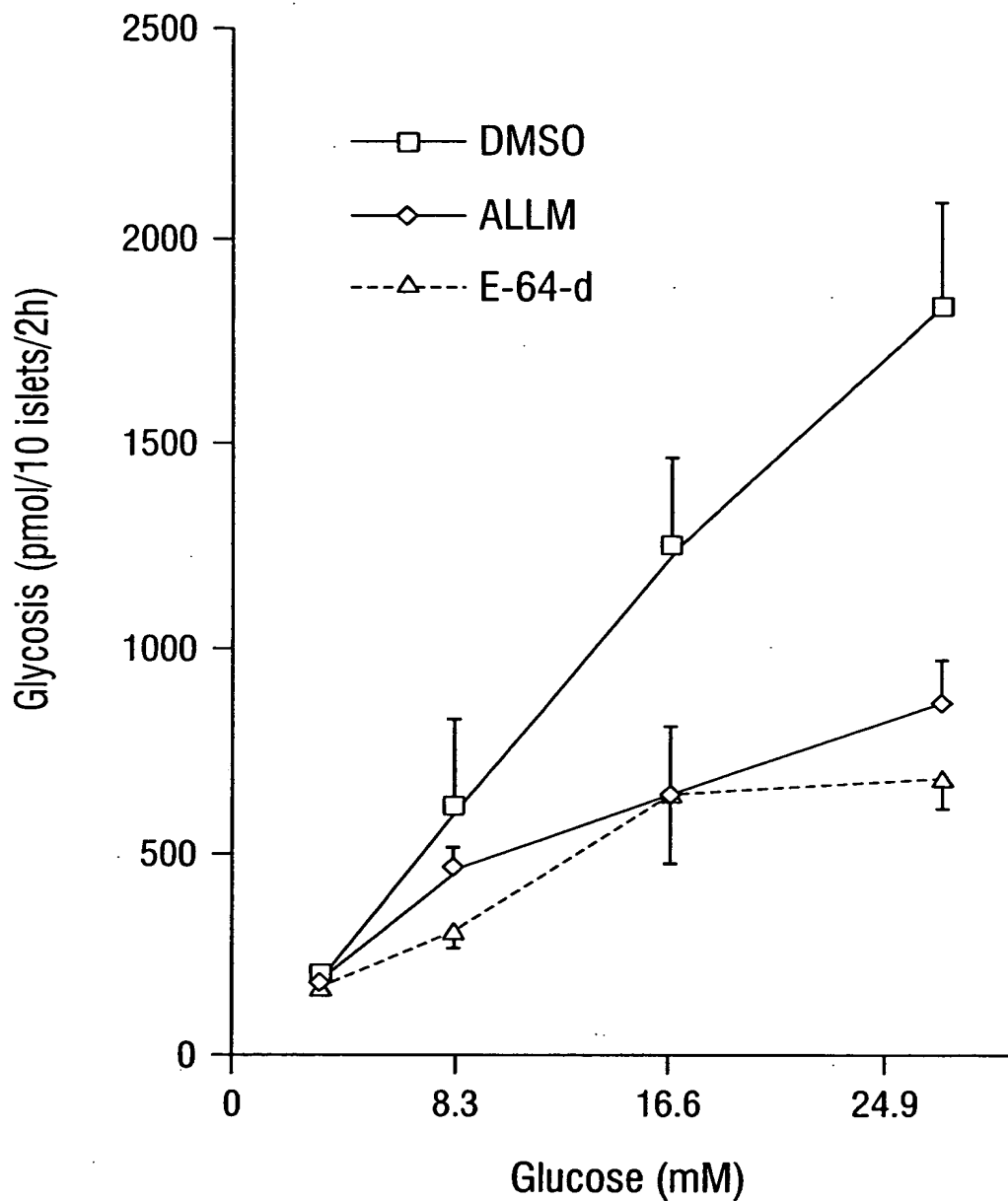
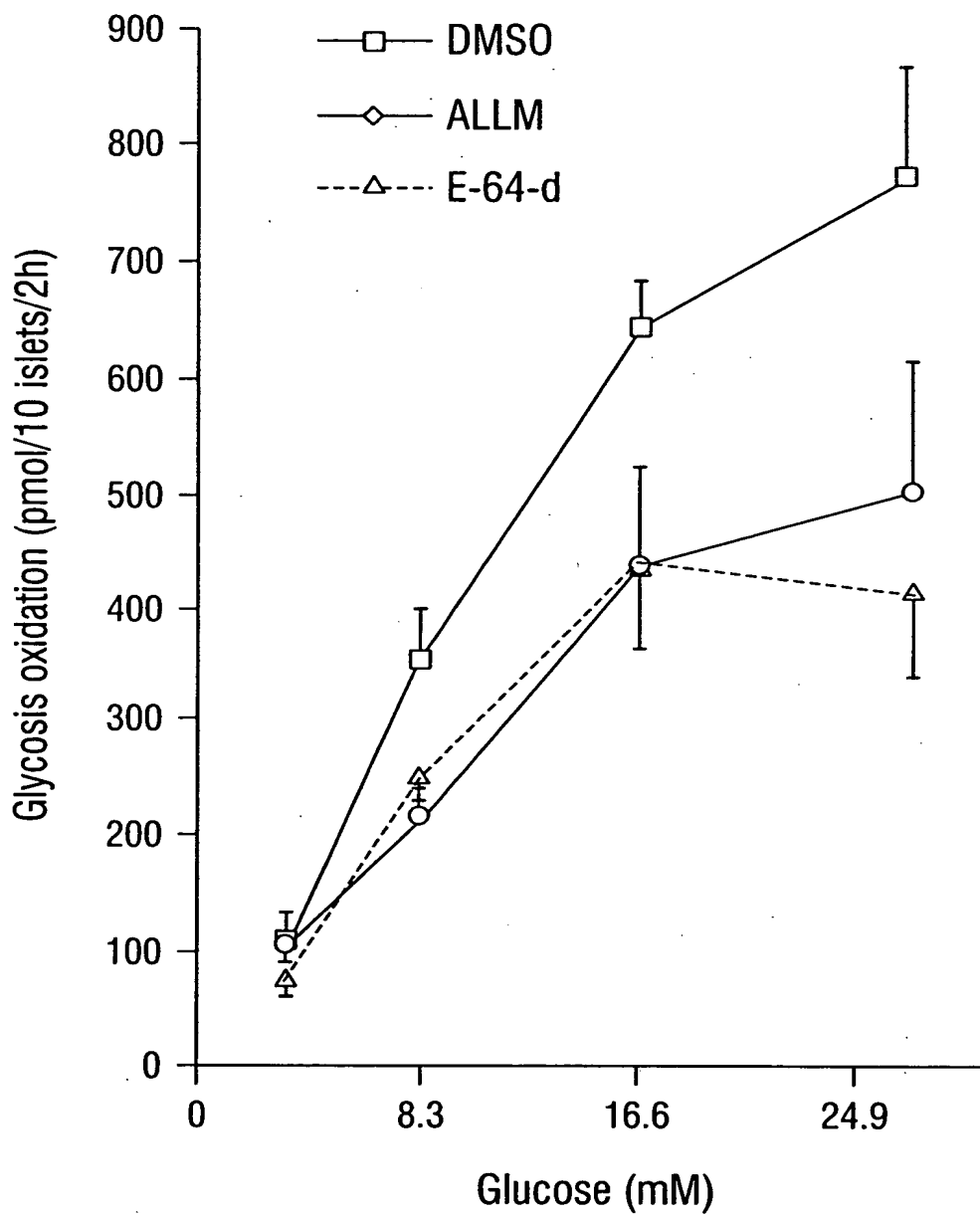


FIG. 22A

APPROVED BY DRAFTSMAN	O.G. FIG.	
	CLASS	SUBCLASS



Glucose (mM)

FIG. 22B

APPROVED	O.G. FIG.	CLASS	SUBCLASS
BY			
DRAFTSMAN			

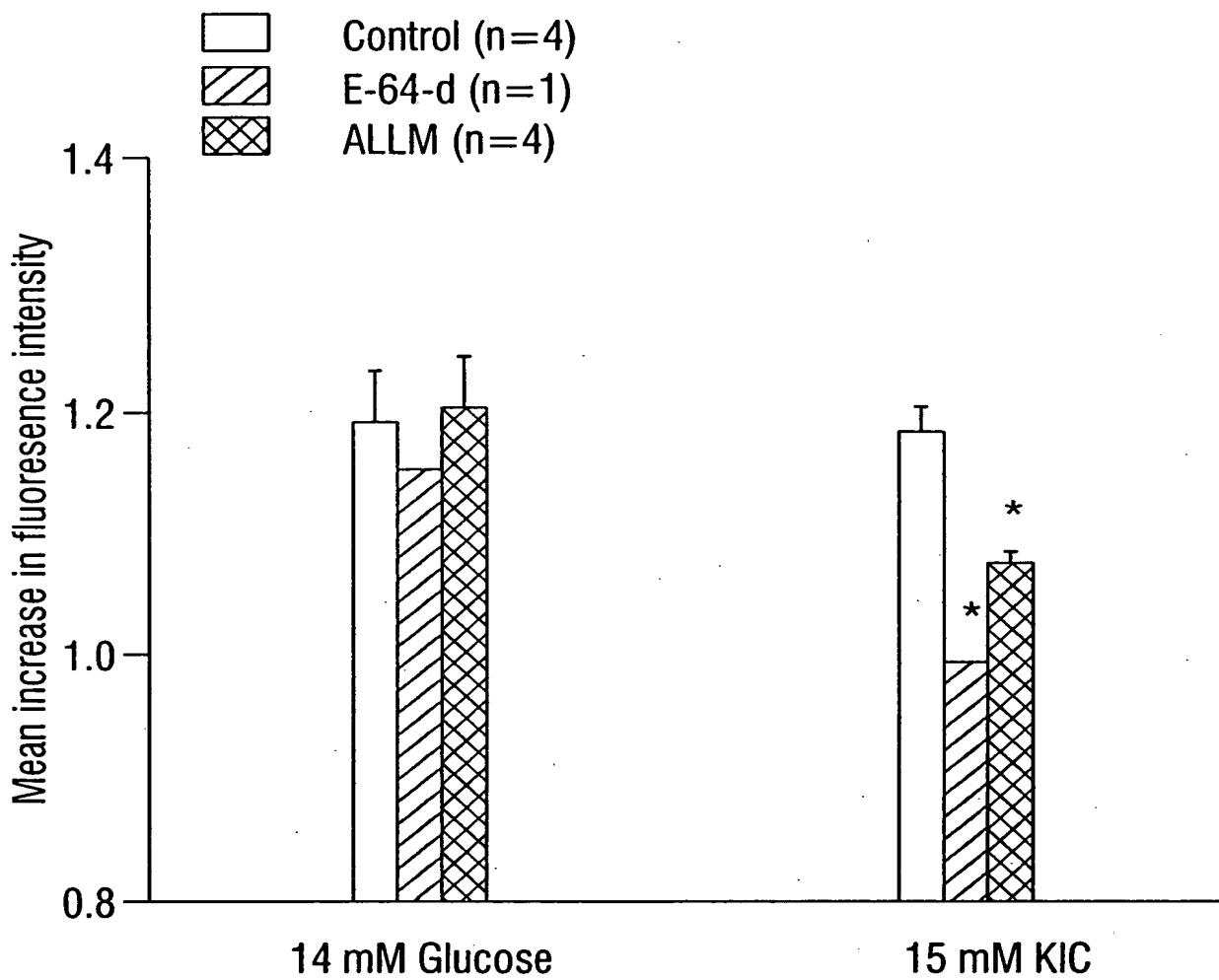


FIG. 23

INVENTOR
BY CLASS
SUBCLASS
JANUARY 21 2003
JANUARY 21 2003

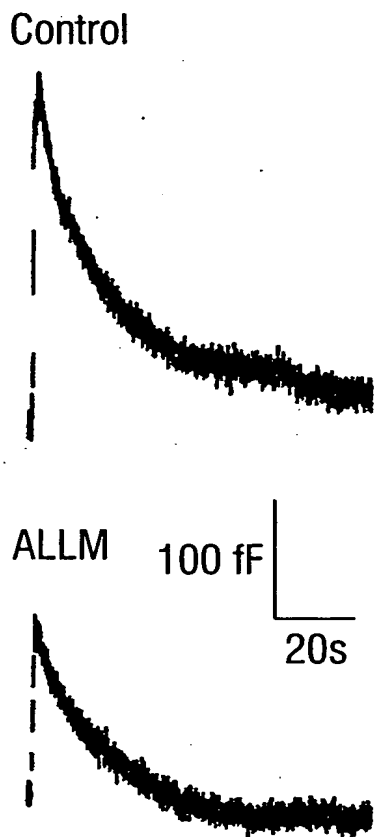


FIG. 24A

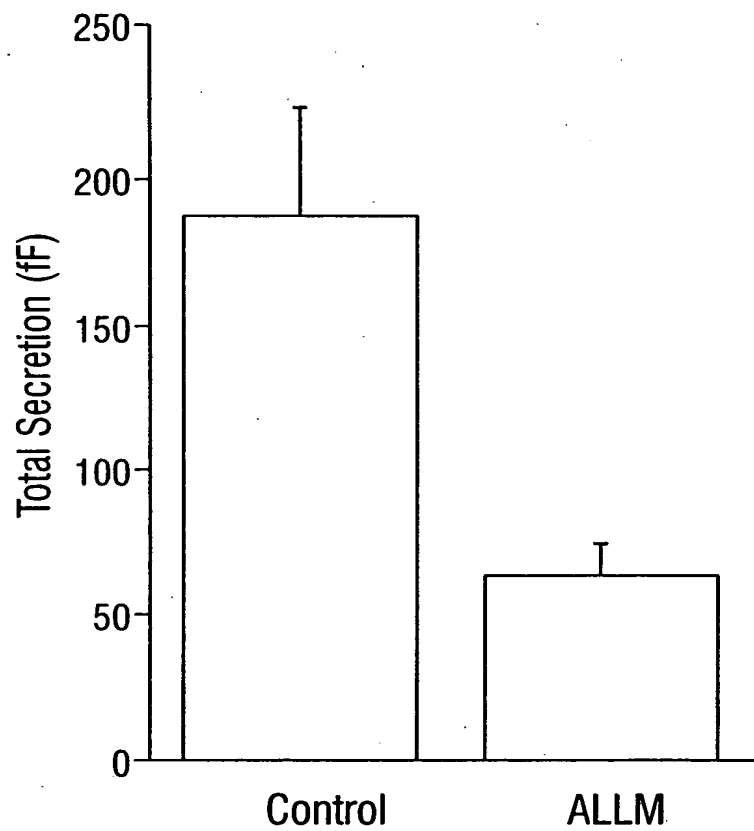
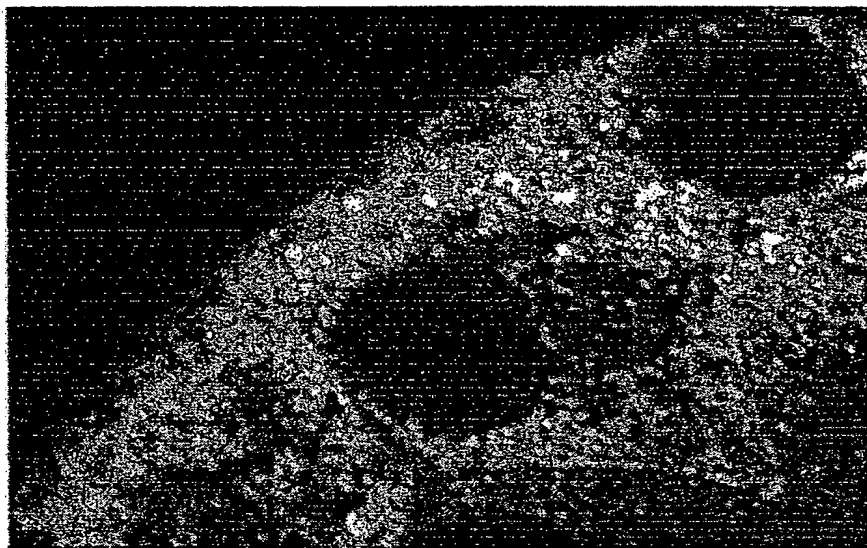


FIG. 24B

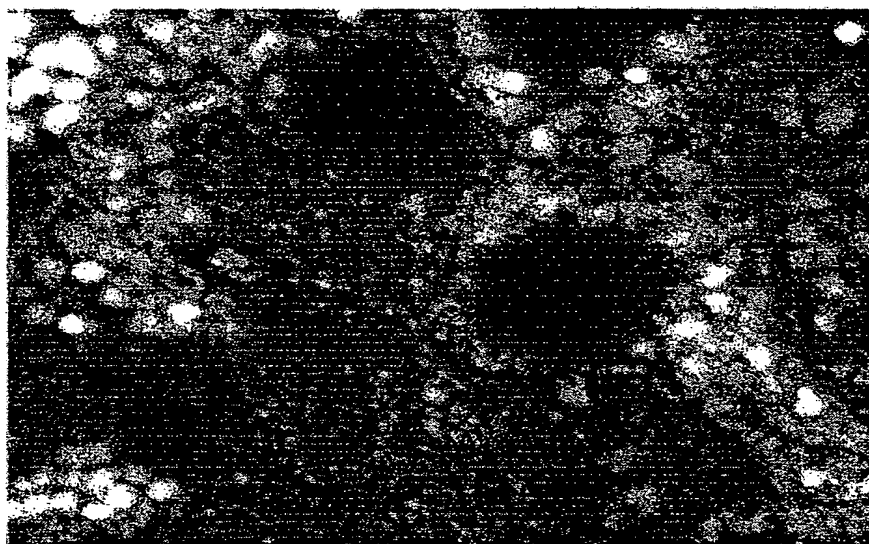


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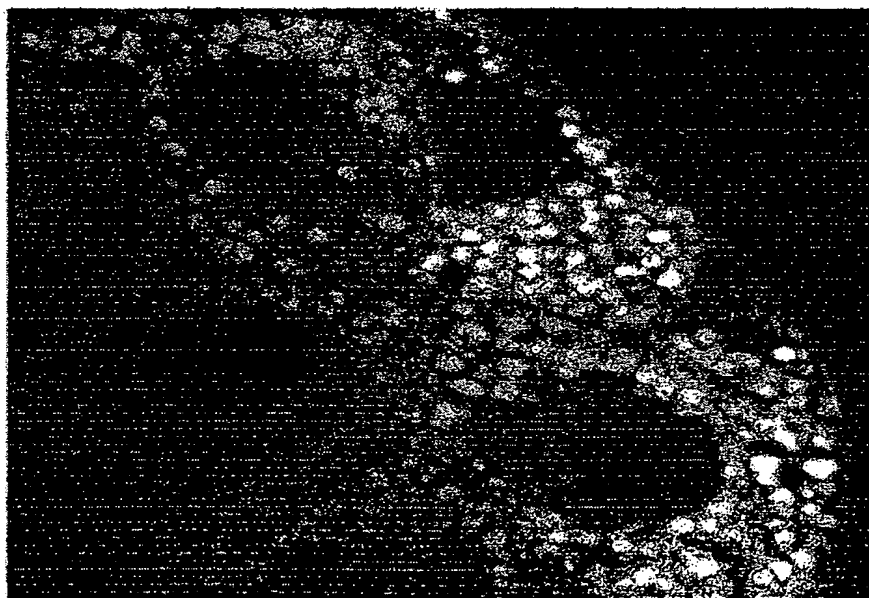
DMSO
FIG. 25A



E64d
FIG. 25A



ALLM
FIG. 25A



APPROVED	O.G. FIG.	CLASS	SUBCLASS
BY			
DRAFTSMAN			

APPROVED	0010	CLASS	SUBCLASS
BY			
DRAFTSMAN			

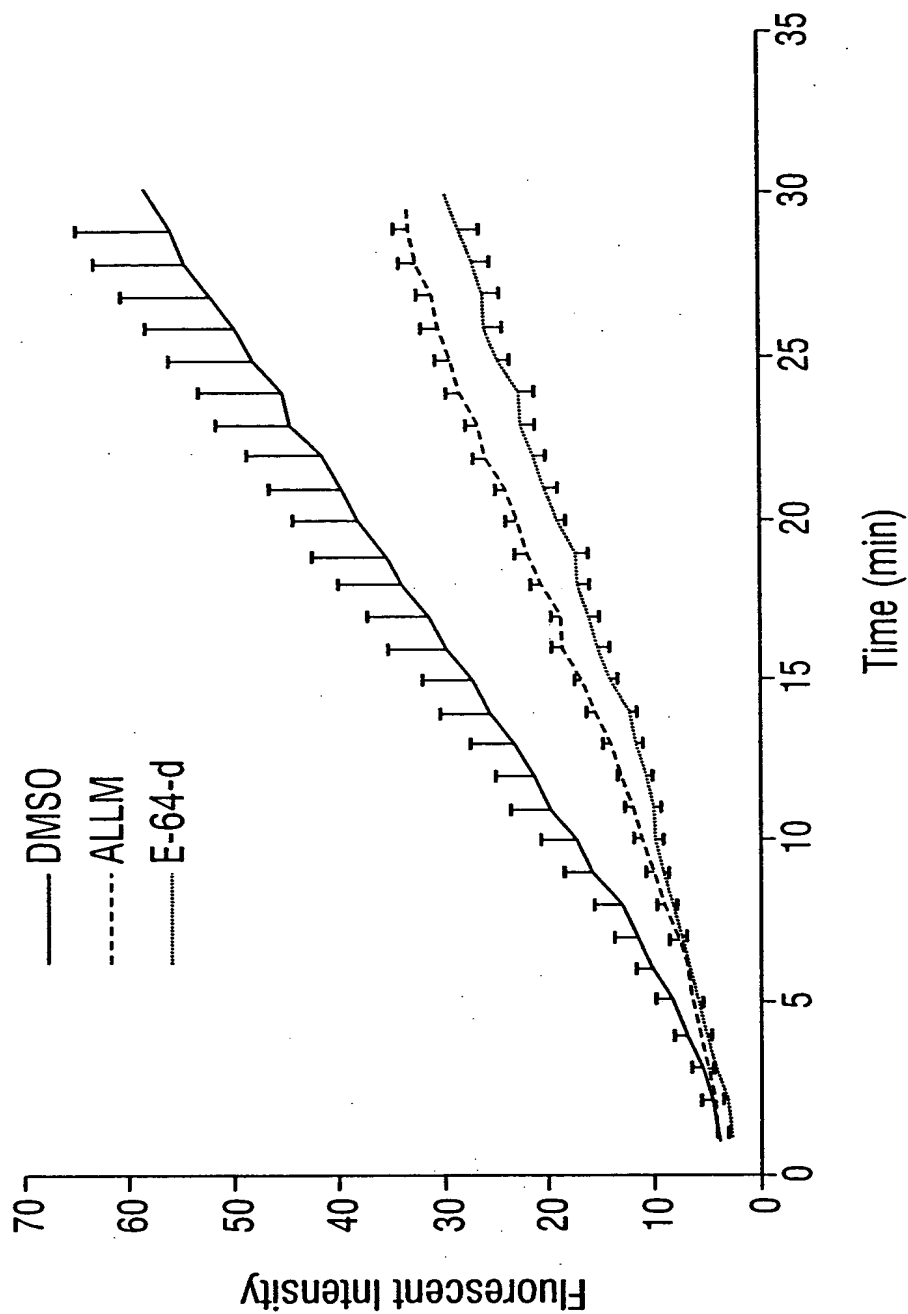


FIG. 26